ENGINEERING BY TRENCO
A MiTek Affiliate

RE: J0725-3385
Lot 90 Magnolia Hills

Trenco
818 Soundside Rd
Edenton, NC 27932

Site Information:
Customer: Project Name: J0725-3385
Lot/Block: Model:
Address: Subdivision:
City: State:

General Truss Engineering Criteria & Design Loads (Individual Truss Design Drawings Show Special Loading Conditions):

Design Code: IRC2021/TPI2014 Design Program: MiTek 20/20 8.6
Wind Code: ASCE 7-16 Wind Speed: 130 mph
Roof Load: 40.0 psf Floor Load: N/A psf

This package includes 36 individual, dated Truss Design Drawings and 5 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I73772890	A1	5/28/2025	21	I73772910	P3	5/28/2025
2	I73772891	A2	5/28/2025	22	I73772911	XA1	5/28/2025
3	I73772892	A3	5/28/2025	23	I73772912	XB1	5/28/2025
4	I73772893	A4	5/28/2025	24	I73772913	XB2	5/28/2025
5	I73772894	A5	5/28/2025	25	I73772914	YA1	5/28/2025
6	I73772895	A6	5/28/2025	26	I73772915	YA2	5/28/2025
7	I73772896	A7	5/28/2025	27	I73772916	YA3	5/28/2025
8	I73772897	A8	5/28/2025	28	I73772917	YB1	5/28/2025
9	I73772898	B1	5/28/2025	29	I73772918	YB2	5/28/2025
10	I73772899	B2	5/28/2025	30	I73772919	YP1	5/28/2025
11	I73772900	B3	5/28/2025	31	I73772920	YP2	5/28/2025
12	I73772901	B4	5/28/2025	32	I73772921	ZA1	5/28/2025
13	I73772902	B5	5/28/2025	33	I73772922	ZB1	5/28/2025
14	I73772903	B6	5/28/2025	34	I73772923	ZB2	5/28/2025
15	I73772904	B7	5/28/2025	35	I73772924	ZP1	5/28/2025
16	I73772905	B8	5/28/2025	36	I73772925	ZP2	5/28/2025
17	I73772906	C1SG	5/28/2025				
18	I73772907	C2	5/28/2025				
19	I73772908	P1	5/28/2025				
20	I73772909	P2	5/28/2025				

The truss drawing(s) referenced above have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Comtech, Inc - Fayetteville.

Truss Design Engineer's Name: Galinski, John

My license renewal date for the state of North Carolina is December 31, 2025.

North Carolina COA: C-0844

IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which were given to TRENCO. Any project specific information included is for TRENCO customers file reference purpose only, and was not taken into account in the preparation of these designs. TRENCO has not independently verified the applicability of the design parameters or the designs for any particular building. Before use, the building designer should verify applicability of design parameters and properly incorporate these designs into the overall building design per ANSI/TPI 1, Chapter 2.

May 28, 2025

Galinski, John

Job	Truss	Truss Type	Qty	Ply	Lot 90 Magnolia Hills
J0725-3385	A1	HIP GIRDER	1	2	I73772890
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Tue May 27 14:44:31 2025 Page 1
ID:3YJEg_u8zX16RsP?VvW_V6zd0wB-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

1-2-8	6-0-0	14-2-15	22-4-1	30-7-0	36-7-0	37-9-8
1-2-8	6-0-0	8-2-15	8-1-3	8-2-15	6-0-0	1-2-8

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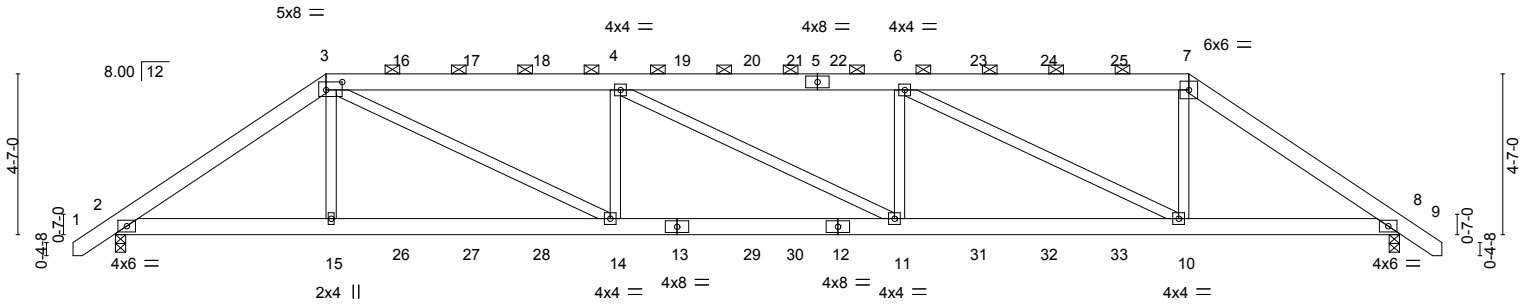

6-0-0	14-2-15	22-4-1	30-7-0	36-7-0
6-0-0	8-2-15	8-1-3	8-2-15	6-0-0

Plate Offsets (X,Y)-- [3:0-5-8,0-2-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.36	Vert(LL)	-0.15	11-14	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.50	Vert(CT)	-0.31	11-14	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.90	Horz(CT)	0.08	8	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.17	11-14	>999	240	Weight: 489 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 3-7.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-3-8, 8=0-3-8
Max Horz 2=-114(LC 27)
Max Uplift 2=-653(LC 8), 8=-653(LC 9)
Max Grav 2=2833(LC 1), 8=2833(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-4582/1149, 3-4=-6354/1682, 4-6=-6351/1682, 6-7=-3751/991, 7-8=-4580/1148
BOT CHORD 2-15=-975/3683, 14-15=-974/3704, 11-14=-1677/6353, 10-11=-1651/6351, 8-10=-875/3683
WEBS 3-15=0/728, 3-14=-868/3008, 4-14=-1007/593, 6-11=0/675, 6-10=-2968/858, 7-10=-358/1913

NOTES-
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); Lumber DOL=1.60 plate grip DOL=1.60
5) Provide adequate drainage to prevent water ponding.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 653 lb uplift at joint 2 and 653 lb uplift at joint 8.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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Continued on page 2

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NOTES-

10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 137 lb down and 121 lb up at 6-0-0, 142 lb down and 118 lb up at 8-0-12, 142 lb down and 118 lb up at 10-0-12, 142 lb down and 118 lb up at 12-0-12, 142 lb down and 118 lb up at 14-0-12, 142 lb down and 118 lb up at 16-0-12, 142 lb down and 118 lb up at 18-0-12, 142 lb down and 118 lb up at 18-6-4, 142 lb down and 118 lb up at 20-6-4, 142 lb down and 118 lb up at 22-6-4, 142 lb down and 118 lb up at 24-6-4, 142 lb down and 118 lb up at 26-6-4, and 142 lb down and 118 lb up at 28-6-4, and 137 lb down and 121 lb up at 30-7-0 on top chord, and 354 lb down and 123 lb up at 6-0-0, 76 lb down at 8-0-12, 76 lb down at 10-0-12, 76 lb down at 12-0-12, 76 lb down at 14-0-12, 76 lb down at 16-0-12, 76 lb down at 18-0-12, 76 lb down at 18-6-4, 76 lb down at 20-6-4, 76 lb down at 22-6-4, 76 lb down at 24-6-4, 76 lb down at 26-6-4, and 76 lb down at 28-6-4, and 354 lb down and 123 lb up at 30-6-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-3=-60, 3-7=-60, 7-9=-60, 2-8=-20
   Concentrated Loads (lb)
   Vert: 3=-104(B) 7=-104(B) 13=-38(B) 15=-351(B) 14=-38(B) 4=-104(B) 11=-38(B) 6=-104(B) 10=-351(B) 12=-38(B) 16=-104(B) 17=-104(B) 18=-104(B) 19=-104(B) 20=-104(B) 21=-104(B) 22=-104(B) 23=-104(B) 24=-104(B) 25=-104(B) 26=-38(B) 27=-38(B) 28=-38(B) 29=-38(B) 30=-38(B) 31=-38(B) 32=-38(B) 33=-38(B)

May 28,2025

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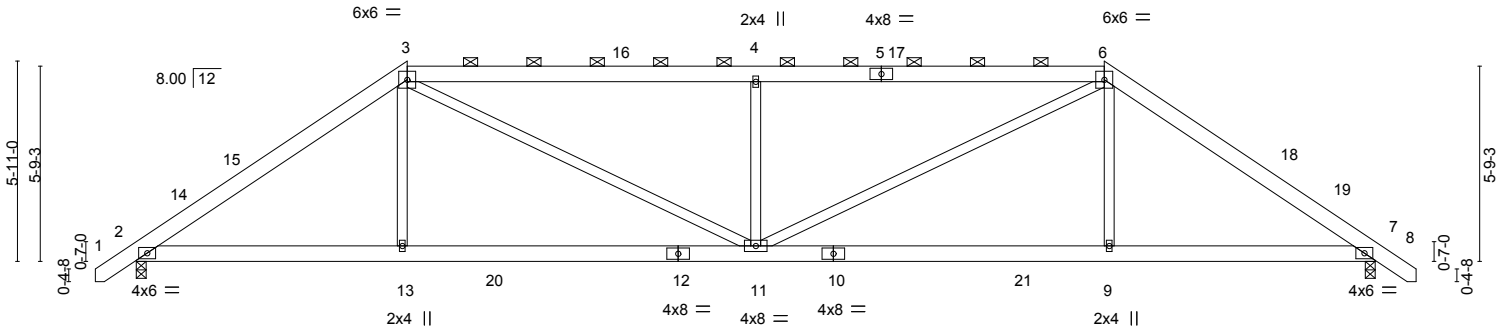
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 90 Magnolia Hills
J0725-3385	A2	HIP	1	1	I73772891
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Tue May 27 14:44:32 2025 Page 1
ID:3YJEg_u8zX16RsP?VvW_V6zd0wB-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

1-2-8 | 8-0-0 | 18-3-8 | 28-7-0 | 36-7-0 | 37-9-8
1-2-8 | 8-0-0 | 10-3-8 | 10-3-8 | 8-0-0 | 1-2-8

Scale = 1:68.0



8-0-0 | 18-3-8 | 28-7-0 | 36-7-0
8-0-0 | 10-3-8 | 10-3-8 | 8-0-0

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.50	Vert(LL)	-0.14	9-11	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.45	Vert(CT)	-0.27	9-11	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.48	Horz(CT)	0.07	7	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.08	11	>999	240	Weight: 241 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-8-2 oc purlins, except 2-0-0 oc purlins (4-1-0 max.): 3-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-3-8, 7=0-3-8
Max Horz 2=-144(LC 10)
Max Uplift 2=-55(LC 9), 7=-55(LC 8)
Max Grav 2=1682(LC 2), 7=1682(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2506/285, 3-4=-2923/369, 4-6=-2922/368, 6-7=-2508/285
BOT CHORD 2-13=-134/1985, 11-13=-137/1973, 9-11=-88/1975, 7-9=-86/1987
WEBS 3-13=0/500, 3-11=-202/1140, 4-11=-729/251, 6-11=-202/1137, 6-9=0/500

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-0-15 to 3-3-14, Interior(1) 3-3-14 to 8-0-0, Exterior(2R) 8-0-0 to 14-2-11, Interior(1) 14-2-11 to 28-7-0, Exterior(2R) 28-7-0 to 34-9-11, Interior(1) 34-9-11 to 37-7-15 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 55 lb uplift at joint 2 and 55 lb uplift at joint 7.
7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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Job	Truss	Truss Type	Qty	Ply	Lot 90 Magnolia Hills
J0725-3385	A3	HIP	1	1	I73772892
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Tue May 27 14:44:33 2025 Page 1
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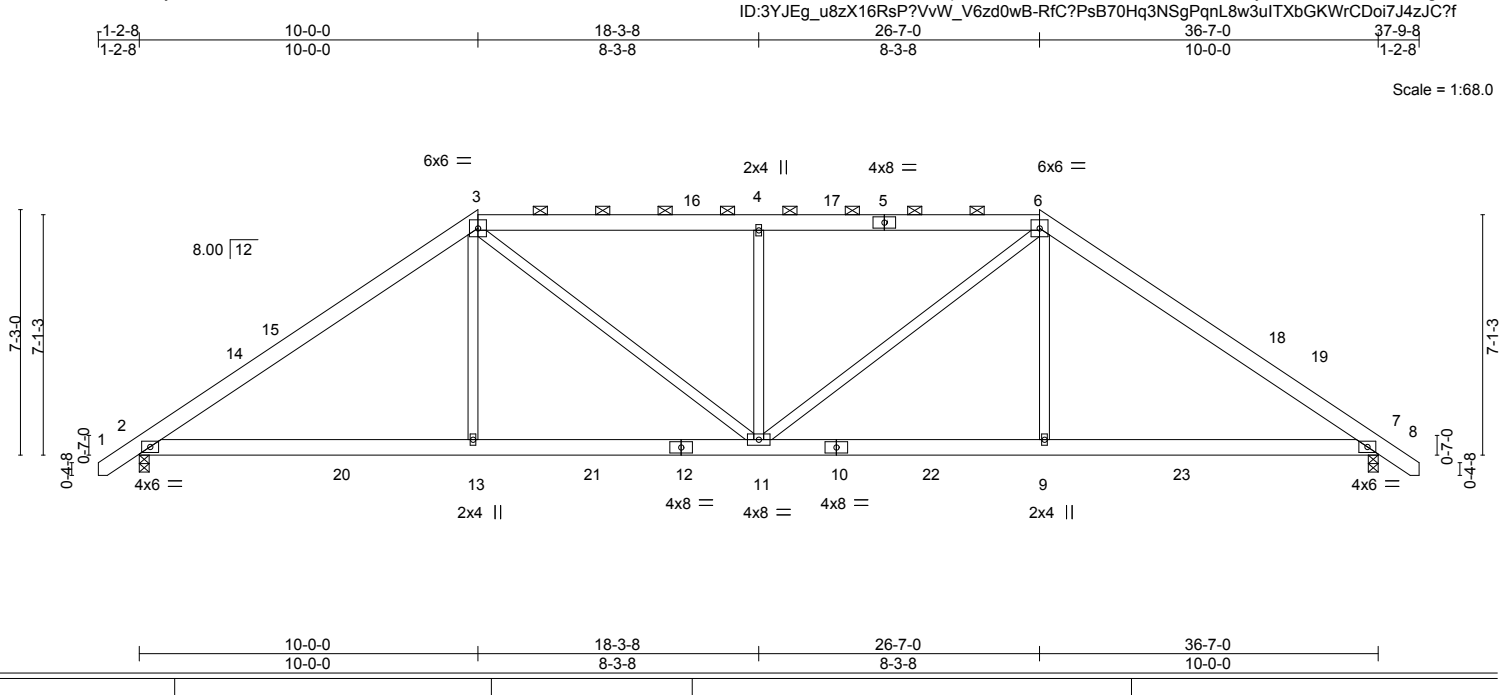

10-0-0		18-3-8		26-7-0		36-7-0					
10-0-0		8-3-8		8-3-8		10-0-0					

LOADING (psf)		**SPACING-**	2-0-0	**CSI.**		**DEFL.**	in	(loc)	l/defl	L/d	**PLATES** **GRIP**
TCLL	20.0	Plate Grip DOL	1.15	TC	0.63	Vert(LL)	-0.13	2-13	>999	360	MT20 244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.57	Vert(CT)	-0.23	2-13	>999	240	
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.42	Horz(CT)	0.07	7	n/a	n/a	
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.06	2-13	>999	240	Weight: 246 lb FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-9-14 oc purlins, except
2-0-0 oc purlins (4-9-0 max.): 3-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-3-8, 7=0-3-8
Max Horz 2=-176(LC 10)
Max Uplift 2=-50(LC 12), 7=-50(LC 13)
Max Grav 2=1826(LC 2), 7=1826(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2609/296, 3-4=-2484/360, 4-6=-2482/359, 6-7=-2610/296
BOT CHORD 2-13=-102/2050, 11-13=-104/2037, 9-11=-75/2038, 7-9=-74/2051
WEBS 3-13=0/683, 3-11=-176/666, 4-11=-564/202, 6-11=-176/664, 6-9=0/683

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-0-15 to 3-3-14, Interior(1) 3-3-14 to 10-0-0, Exterior(2R) 10-0-0 to 16-2-11, Interior(1) 16-2-11 to 26-7-0, Exterior(2R) 26-7-0 to 32-9-11, Interior(1) 32-9-11 to 37-7-15 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 50 lb uplift at joint 2 and 50 lb uplift at joint 7.
7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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Job	Truss	Truss Type	Qty	Ply	Lot 90 Magnolia Hills
J0725-3385	A4	ROOF SPECIAL	1	1	I73772893
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Tue May 27 14:44:33 2025 Page 1
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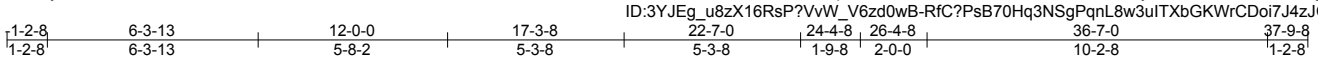

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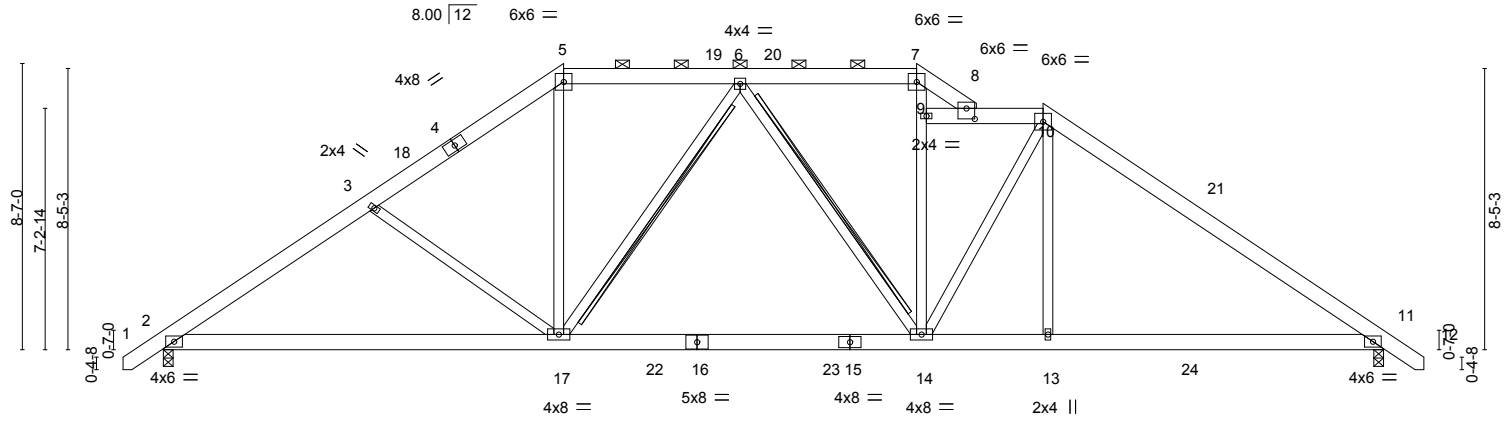

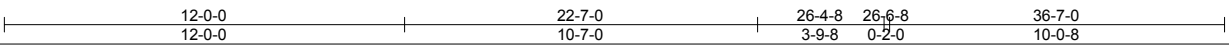

Plate Offsets (X,Y)-- [8:0-3-0,0-3-13]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.81	Vert(LL)	-0.23	14-17	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.64	Vert(CT)	-0.34	14-17	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.34	Horz(CT)	0.06	11	n/a	n/a		
BCDL	10.0	Code IRC2021/TPI2014		Matrix-S		Wind(LL)	0.06	11-13	>999	240	Weight: 274 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-11-0 oc purlins, except
2-0-0 oc purlins (3-10-5 max.): 5-7, 9-10.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS T-Brace: 2x4 SPF No.2 - 6-17, 6-14
Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c.,with 3in minimum end distance.
Brace must cover 90% of web length.

REACTIONS. (size) 2=0-3-8, 11=0-3-8
Max Horz 2=210(LC 11)
Max Uplift 2=-64(LC 12), 11=-79(LC 13)
Max Grav 2=1717(LC 19), 11=1777(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2455/483, 3-5=-2221/440, 5-6=-1766/427, 6-7=-1911/452, 7-8=-2218/495, 8-10=-1901/405, 10-11=-2474/430
BOT CHORD 2-17=-291/2064, 14-17=-160/1928, 13-14=-165/1959, 11-13=-164/1967
WEBS 3-17=-341/240, 5-17=-87/918, 6-17=-389/173, 9-14=-78/428, 7-9=-152/832, 10-13=0/430

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-0-15 to 3-3-14, Interior(1) 3-3-14 to 12-0-0, Exterior(2R) 12-0-0 to 16-4-13, Interior(1) 16-4-13 to 22-7-0, Exterior(2E) 22-7-0 to 24-4-8, Interior(1) 24-4-8 to 26-4-8, Exterior(2R) 26-4-8 to 30-9-5, Interior(1) 30-9-5 to 37-7-15 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 64 lb uplift at joint 2 and 79 lb uplift at joint 11.
7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
8) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 90 Magnolia Hills
J0725-3385	A5	ROOF SPECIAL	1	1	I73772894
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Tue May 27 14:44:34 2025 Page 1
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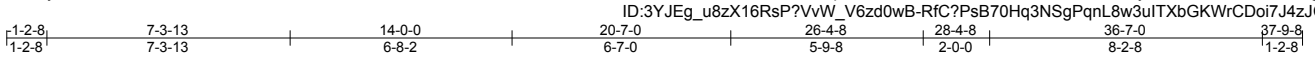

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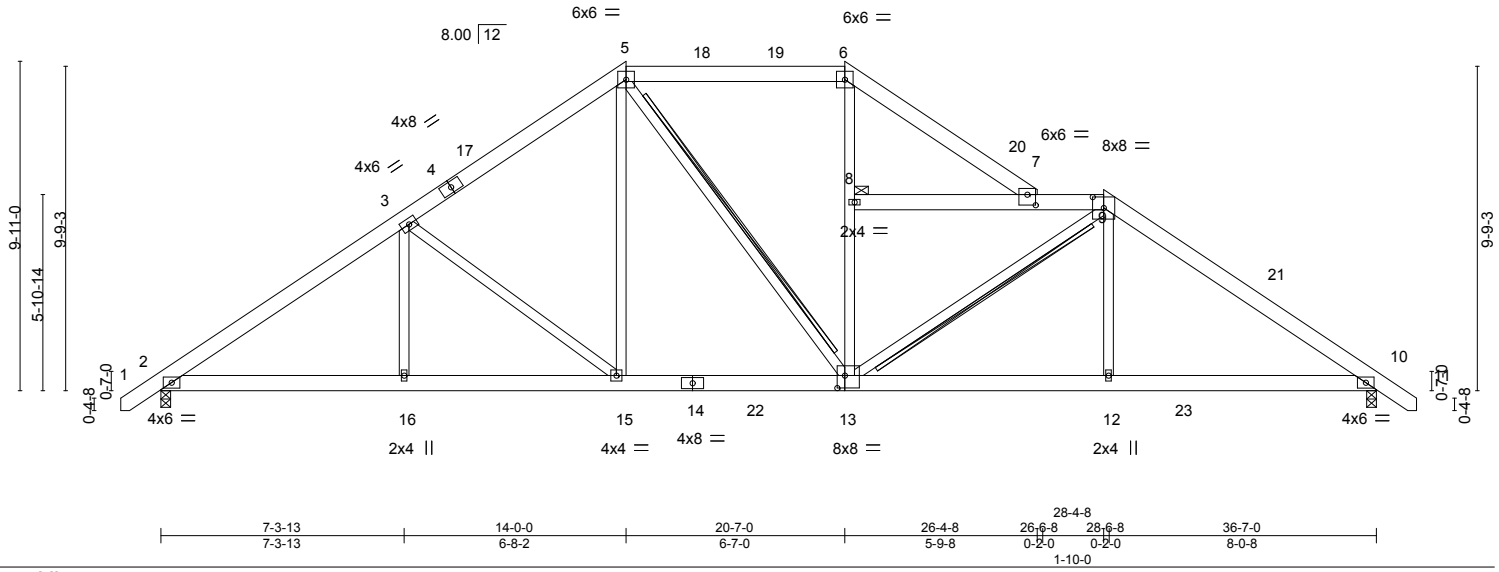

Plate Offsets (X,Y)-- [7:0-3-0,0-3-13], [9:0-4-0,0-3-15], [13:0-2-12,0-4-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.64	Vert(LL)	-0.15	13-15	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.39	Vert(CT)	-0.26	13-15	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.71	Horz(CT)	0.06	10	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.08	13	>999	240	Weight: 287 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1 *Except* 8-9: 2x6 SP 2400F 2.0E
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-9-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 5-6, 8-9.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS T-Brace: 2x4 SPF No.2 - 9-13, 5-13
Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c.,with 3in minimum end distance.
Brace must cover 90% of web length.
JOINTS 1 Brace at Jt(s): 8

REACTIONS. (size) 2=0-3-8, 10=0-3-8
Max Horz 2=241(LC 11)
Max Uplift 2=-76(LC 12), 10=-90(LC 13)
Max Grav 2=1719(LC 19), 10=1728(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2475/445, 3-5=-1972/472, 5-6=-1619/472, 6-7=-1972/469, 7-9=-1592/306, 9-10=-2511/456
BOT CHORD 2-16=-243/2116, 15-16=-243/2116, 13-15=-70/1603, 12-13=-235/2018, 10-12=-233/2028
WEBS 3-16=0/296, 3-15=-629/217, 5-15=-59/711, 8-13=0/505, 6-8=-51/702, 9-13=-582/206, 9-12=0/421

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-0-15 to 3-3-14, Interior(1) 3-3-14 to 14-0-0, Exterior(2R) 14-0-0 to 18-4-13, Interior(1) 18-4-13 to 20-7-0, Exterior(2R) 20-7-0 to 24-11-13, Interior(1) 24-11-13 to 28-4-8, Exterior(2R) 28-4-8 to 32-9-5, Interior(1) 32-9-5 to 37-7-15 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 76 lb uplift at joint 2 and 90 lb uplift at joint 10.
7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
8) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.

May 28,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 90 Magnolia Hills
J0725-3385	A6	ROOF SPECIAL	1	1	I73772895
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Tue May 27 14:44:34 2025 Page 1
ID:3YJEg_u8zX16RsP?VvW_V6zd0wB-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

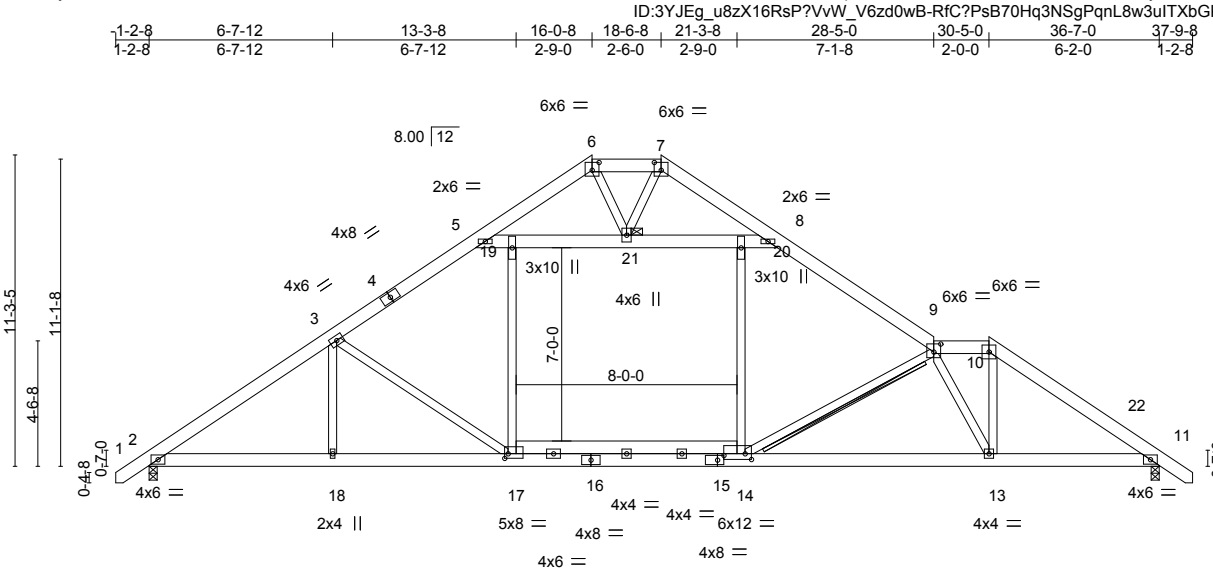

Plate Offsets (X,Y)-- [6:0-3-0,0-3-6], [7:0-3-0,0-3-6], [9:0-3-0,0-3-8], [14:0-2-12,0-2-8], [15:0-2-12,0-2-0], [17:0-1-8,0-2-0]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.40	Vert(LL)	-0.27	13-14	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.79	Vert(CT)	-0.42	13-14	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.73	Horz(CT)	0.07	11	n/a	n/a		
BCDL	10.0	Code IRC2021/TPI2014		Matrix-S		Wind(LL)	0.18	13-14	>999	240	Weight: 309 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2 *Except*
5-8: 2x6 SP No.1

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-7-8 oc purlins, except 2-0-0 oc purlins (5-4-15 max.): 6-7, 9-10.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS T-Brace: 2x4 SPF No.2 - 9-14
Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c.,with 3in minimum end distance. Brace must cover 90% of web length.
JOINTS 1 Brace at Jt(s): 21

REACTIONS. (size) 2=0-3-8, 11=0-3-8
Max Horz 2=272(LC 11)
Max Uplift 2=-85(LC 12), 11=-98(LC 13)
Max Grav 2=1801(LC 19), 11=1766(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2625/415, 3-5=-2189/443, 5-6=-824/182, 6-7=-752/190, 7-8=-822/181, 8-9=-2230/448, 9-10=-2109/411, 10-11=-2668/417
BOT CHORD 2-18=-225/2261, 17-18=-225/2261, 14-17=-113/1863, 13-14=-308/2528, 11-13=-221/2106
WEBS 3-17=-492/195, 17-19=-16/688, 14-20=-6/838, 9-13=-1008/221, 10-13=-108/1225, 9-14=-998/273, 5-19=-1241/362, 19-21=-1241/362, 20-21=-1171/352, 8-20=-1171/352, 6-21=-56/448, 7-21=-79/337

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-0-15 to 3-3-14, Interior(1) 3-3-14 to 16-0-8, Exterior(2E) 16-0-8 to 18-6-8, Exterior(2R) 18-6-8 to 22-9-14, Interior(1) 22-9-14 to 30-5-0, Exterior(2R) 30-5-0 to 34-9-13, Interior(1) 34-9-13 to 37-7-15 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 85 lb uplift at joint 2 and 98 lb uplift at joint 11.
7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
8) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.

May 28,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 90 Magnolia Hills
J0725-3385	A7	ROOF SPECIAL	1	1	I73772896
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Tue May 27 14:44:35 2025 Page 1
ID:3YJEg_u8zX16RsP?VvW_V6zd0wB-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

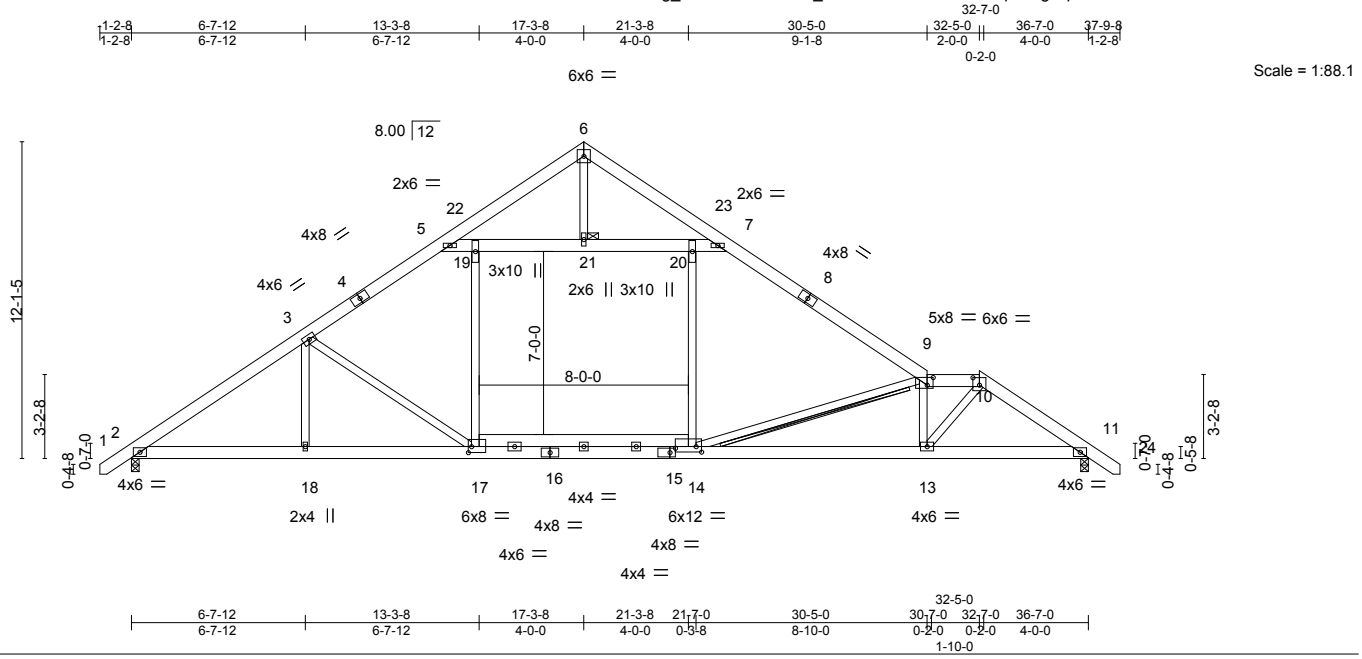

Plate Offsets (X,Y)-- [9:0-2-12,0-3-8], [10:0-3-0,0-3-6], [14:0-2-8,0-2-8], [15:0-2-8,0-2-0], [17:0-1-8,0-2-12]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.38	Vert(LL)	-0.32	13-14	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.88	Vert(CT)	-0.49	13-14	>891	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.72	Horz(CT)	0.07	11	n/a	n/a		
BCDL	10.0	Code IRC2021/TPI2014		Matrix-S		Wind(LL)	0.22	13-14	>999	240	Weight: 306 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2 *Except*
5-7: 2x6 SP No.1

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-7-6 oc purlins, except 2-0-0 oc purlins (4-4-4 max.): 9-10.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS T-Brace: 2x4 SPF No.2 - 9-14
Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c.,with 3in minimum end distance. Brace must cover 90% of web length.
JOINTS 1 Brace at Jt(s): 21

REACTIONS. (size) 2=0-3-8, 11=0-3-8
Max Horz 2=-294(LC 10)
Max Uplift 2=-90(LC 12), 11=-102(LC 13)
Max Grav 2=1818(LC 19), 11=1778(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2650/392, 3-5=-2260/447, 5-6=-794/134, 6-7=-815/135, 7-9=-2323/424, 9-10=-3250/535, 10-11=-2698/425
BOT CHORD 2-18=-203/2297, 17-18=-203/2297, 14-17=-113/1915, 13-14=-377/3160, 11-13=-250/2148
WEBS 3-17=-495/220, 9-13=-1071/290, 10-13=-247/1756, 9-14=-1515/315, 5-19=-1304/412, 19-21=-1304/412, 20-21=-1304/412, 7-20=-1304/412, 17-19=-15/685, 14-20=0/814, 6-21=0/549

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-0-15 to 3-3-14, Interior(1) 3-3-14 to 17-3-8, Exterior(2R) 17-3-8 to 21-8-5, Interior(1) 21-8-5 to 32-5-0, Exterior(2R) 32-5-0 to 36-9-13, Interior(1) 36-9-13 to 37-7-15 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 90 lb uplift at joint 2 and 102 lb uplift at joint 11.
7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
8) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.

May 28,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 90 Magnolia Hills
J0725-3385	A8	ROOF SPECIAL GIRDER	1	1	I73772897
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Tue May 27 14:44:36 2025 Page 1
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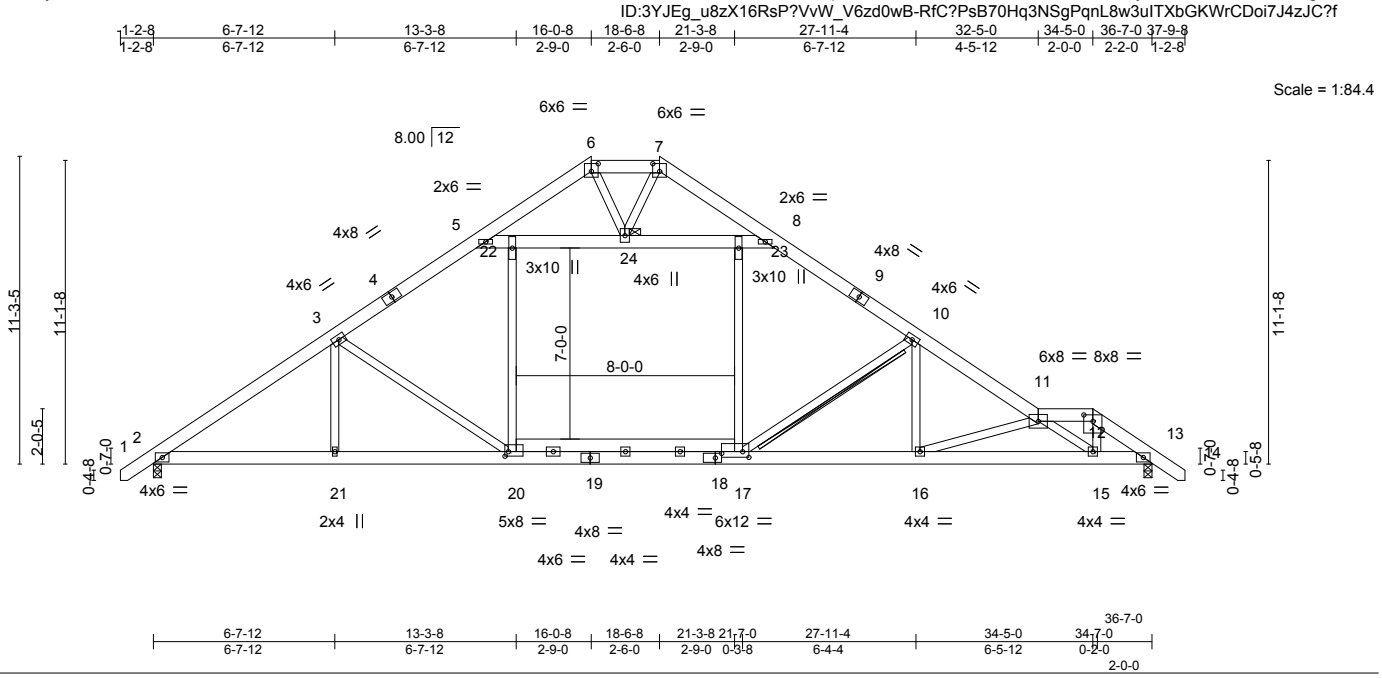


Plate Offsets (X,Y)-- [6:0-3-0,0-3-6], [7:0-3-0,0-3-6], [12:0-4-0,0-2-13], [17:0-2-12,0-2-8], [18:0-2-12,0-2-0], [20:0-1-8,0-2-0]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.39	Vert(LL)	-0.25	16-17	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.70	Vert(CT)	-0.39	16-17	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.73	Horz(CT)	0.08	13	n/a	n/a		
BCDL	10.0	Code IRC2021/TPI2014		Matrix-S		Wind(LL)	0.17	16-17	>999	240	Weight: 315 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2 *Except*
5-8: 2x6 SP No.1

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-4-6 oc purlins, except 2-0-0 oc purlins (5-7-7 max.): 6-7, 11-12.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS T-Brace: 2x4 SPF No.2 - 10-17
Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c.,with 3in minimum end distance. Brace must cover 90% of web length.
JOINTS 1 Brace at Jt(s): 24

REACTIONS. (size) 2=0-3-8, 13=0-3-8
Max Horz 2=273(LC 7)
Max Uplift 2=-86(LC 8), 13=-101(LC 9)
Max Grav 2=1802(LC 35), 13=1777(LC 36)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2629/123, 3-5=-2186/151, 5-6=-842/54, 6-7=-770/60, 7-8=-835/57, 8-10=-2215/142, 10-11=-3095/161, 11-12=-1941/79, 12-13=-2591/74
BOT CHORD 2-21=-135/2266, 20-21=-135/2266, 17-20=0/1858, 16-17=-21/2533, 15-16=-133/3771, 13-15=-12/2047
WEBS 3-20=-498/192, 20-22=0/694, 17-23=0/858, 11-15=-2272/152, 12-15=0/1357, 10-17=-1070/208, 10-16=0/727, 11-16=-1308/118, 5-22=-1201/173, 22-24=-1201/173, 23-24=-1159/168, 8-23=-1159/168, 7-24=-71/341, 6-24=-60/450

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 86 lb uplift at joint 2 and 101 lb uplift at joint 13.
7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 66 lb down and 36 lb up at 34-5-0 on top chord, and 10 lb down at 34-5-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
9) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.
10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

May 28,2025

LOAD CASE(S) Standard

Continued on page 2

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-6=-60, 6-7=-60, 7-11=-60, 11-12=-60, 12-14=-60, 2-13=-20

May 28,2025

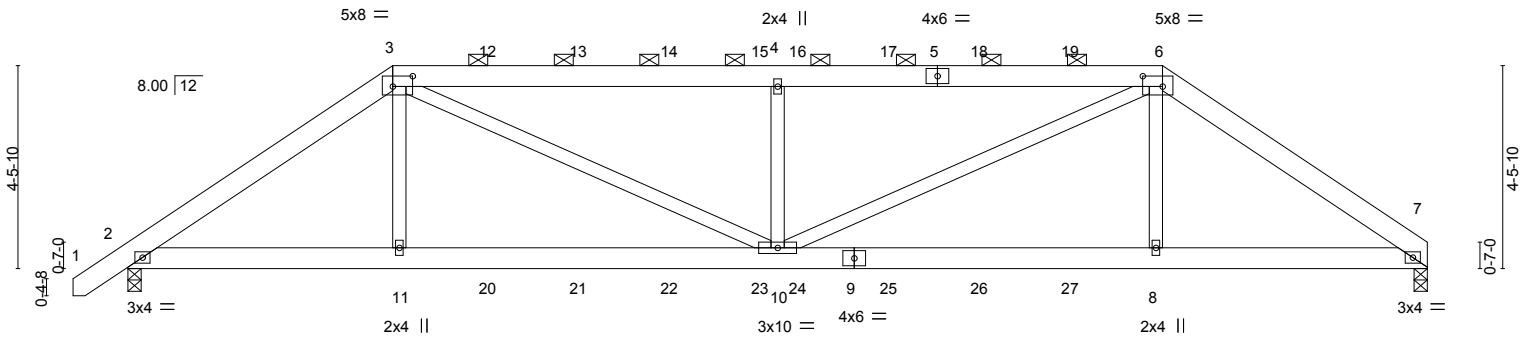
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 90 Magnolia Hills
J0725-3385	B1	HIP GIRDER	1	2	I73772898
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Tue May 27 14:44:37 2025 Page 1
ID:3YJEg_u8zX16RsP?VvW_V6zd0wB-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

-1-2-8 | 5-10-0 | 14-3-12 | 22-9-8 | 28-7-8
1-2-8 | 5-10-0 | 8-5-12 | 8-5-12 | 5-10-0

Scale = 1:50.8



5-10-0 | 14-3-12 | 22-9-8 | 28-7-8
5-10-0 | 8-5-12 | 8-5-12 | 5-10-0

Plate Offsets (X,Y)-- [3:0-5-4,0-2-12], [6:0-5-4,0-2-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.32	Vert(LL)	-0.07	10	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.28	Vert(CT)	-0.13	10-11	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.21	Horz(CT)	0.04	7	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.07	10	>999	240	Weight: 372 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 3-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 7=0-3-8, 2=0-3-8
Max Horz 2=106(LC 28)
Max Uplift 7=-483(LC 9), 2=-501(LC 8)
Max Grav 7=2100(LC 1), 2=2177(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3447/843, 3-4=-4284/1127, 4-6=-4285/1127, 6-7=-3431/844
BOT CHORD 2-11=-732/2755, 10-11=-731/2776, 8-10=-646/2782, 7-8=-647/2761
WEBS 3-11=0/714, 3-10=-536/1723, 4-10=-1085/640, 6-10=-536/1720, 6-8=0/716

NOTES-
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); Lumber DOL=1.60 plate grip DOL=1.60
5) Provide adequate drainage to prevent water ponding.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 483 lb uplift at joint 7 and 501 lb uplift at joint 2.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 134 lb down and 118 lb up at 5-10-0, 139 lb down and 115 lb up at 7-10-12, 139 lb down and 115 lb up at 9-10-12, 139 lb down and 115 lb up at 11-10-12, 139 lb down and 115 lb up at 13-10-12, 139 lb down and 115 lb up at 14-8-12, 139 lb down and 115 lb up at 16-8-12, 139 lb down and 115 lb up at 18-8-12, and 139 lb down and 115 lb up at 20-8-12, and 134 lb down and 118 lb up at 22-9-8 on top chord, and 336 lb down and 119 lb up at 5-10-0, 73 lb down at 7-10-12, 73 lb down at 9-10-12, 73 lb down at 11-10-12, 73 lb down at 13-10-12, 73 lb down at 14-8-12, 73 lb down at 16-8-12, 73 lb down at 18-8-12, and 73 lb down at 20-8-12, and 336 lb down and 119 lb up at 22-8-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

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LOAD CASE(S) Standard

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ENGINEERING BY TRENCO
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Edenton, NC 27932

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-3=-60, 3-6=-60, 6-7=-60, 2-7=-20
   Concentrated Loads (lb)
   Vert: 3=-99(F) 6=-99(F) 11=-329(F) 8=-329(F) 12=-99(F) 13=-99(F) 14=-99(F) 15=-99(F) 16=-99(F) 17=-99(F) 18=-99(F) 19=-99(F) 20=-36(F) 21=-36(F) 22=-36(F) 23=-36(F) 24=-36(F) 25=-36(F) 26=-36(F) 27=-36(F)

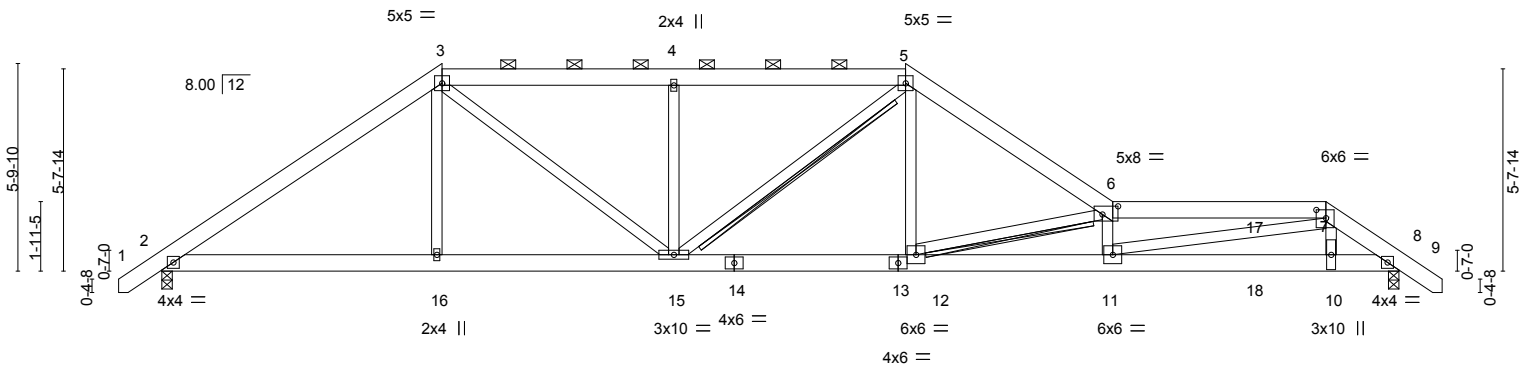
May 28,2025

Job	Truss	Truss Type	Qty	Ply	Lot 90 Magnolia Hills
J0725-3385	B2	ROOF SPECIAL GIRDER	1	1	I73772899
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Tue May 27 14:44:37 2025 Page 1
ID:3YJEg_u8zX16RsP?VvW_V6zd0wB-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

1-2-8	7-10-0	14-3-12	20-9-8	26-7-0	32-6-8	34-7-0	35-9-8
1-2-8	7-10-0	6-5-12	6-5-12	5-9-8	5-11-8	2-0-8	1-2-8

Scale: 3/16"=1'



7-10-0	14-3-12	20-9-8	26-7-0	32-6-8	34-7-0
7-10-0	6-5-12	6-5-12	5-9-8	5-11-8	2-0-8

Plate Offsets (X,Y)-- [6:0-5-4,0-2-12], [7:0-3-4,0-2-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.51	Vert(LL)	-0.26	11-12	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.57	Vert(CT)	-0.53	11-12	>776	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.83	Horz(CT)	0.07	8	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.18	11-12	>999	240	Weight: 242 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1 *Except*
8-13: 2x6 SP 2400F 2.0E
WEBS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-5-1 oc purlins, except 2-0-0 oc purlins (3-1-1 max.): 3-5, 6-7.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS T-Brace: 2x4 SPF No.2 - 5-15, 6-12
Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c.,with 3in minimum end distance.
Brace must cover 90% of web length.

REACTIONS. (size) 2=0-3-8, 8=0-3-8
Max Horz 2=142(LC 28)
Max Uplift 2=-39(LC 8), 8=-93(LC 9)
Max Grav 2=1445(LC 1), 8=1445(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2078/53, 3-4=-2225/85, 4-5=-2225/85, 5-6=-2717/82, 6-7=-5290/211, 7-8=-2543/104
BOT CHORD 2-16=-78/1610, 15-16=-80/1605, 12-15=0/2203, 11-12=-136/5193, 10-11=-48/1988, 8-10=-42/2029
WEBS 3-16=0/325, 3-15=-138/880, 4-15=-451/161, 5-12=0/1051, 6-12=-3058/216, 6-11=-971/107, 7-11=-102/3398, 7-10=0/463

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 39 lb uplift at joint 2 and 93 lb uplift at joint 8.
7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 64 lb down and 27 lb up at 30-5-12, and 132 lb down and 62 lb up at 32-6-8 on top chord, and 6 lb down at 30-5-12, and 15 lb down at 32-5-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
9) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.
10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

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ENGINEERING BY TRENCO
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Edenton, NC 27932

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-3=-60, 3-5=-60, 5-6=-60, 6-7=-60, 7-9=-60, 2-8=-20

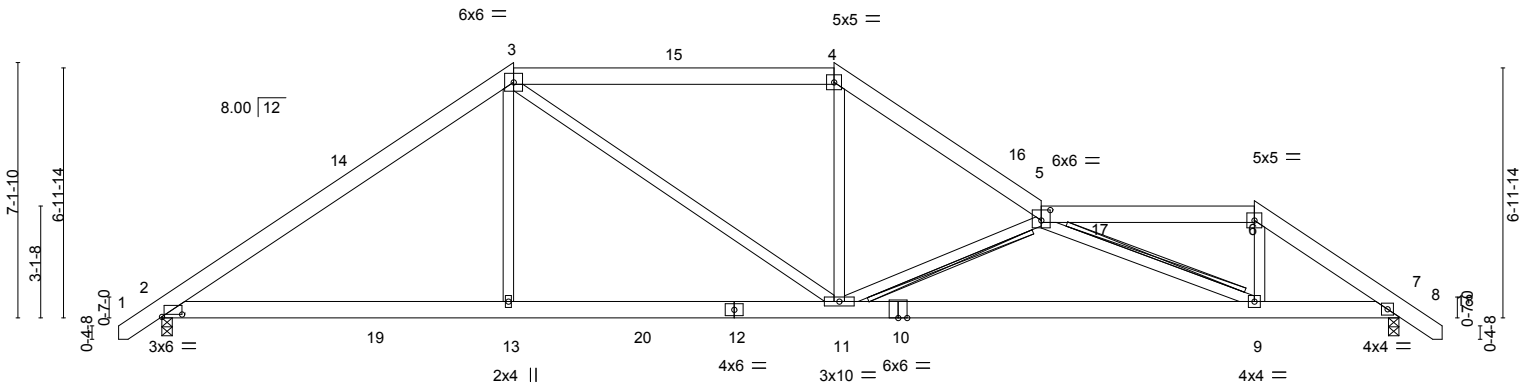
May 28,2025

Job	Truss	Truss Type	Qty	Ply	Lot 90 Magnolia Hills
J0725-3385	B3	ROOF SPECIAL	1	1	I73772900
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Tue May 27 14:44:38 2025 Page 1
ID:3YJEg_u8zX16RsP?VvW_V6zd0wB-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

1-2-8	9-10-0	18-9-8	24-7-0	30-6-8	34-7-0	35-9-8
1-2-8	9-10-0	8-11-8	5-9-8	5-11-8	4-0-8	1-2-8

Scale: 3/16"=1'



9-10-0	18-9-8	30-6-8	34-7-0
9-10-0	8-11-8	11-9-0	4-0-8

Plate Offsets (X,Y)-- [2:0-6-12,0-0-13], [5:0-3-0,0-3-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.56	Vert(LL)	-0.19	9-11	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.71	Vert(CT)	-0.37	9-11	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.54	Horz(CT)	0.08	7	n/a	n/a		
BCDL	10.0	Code IRC2021/TPI2014		Matrix-S		Wind(LL)	0.08	9-11	>999	240	Weight: 235 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-0-15 oc purlins, except
2-0-0 oc purlins (4-10-14 max.): 3-4, 5-6.
BOT CHORD Rigid ceiling directly applied or 9-7-10 oc bracing.
WEBS T-Brace: 2x4 SPF No.2 - 5-11, 5-9
Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c.,with 3in minimum end distance.
Brace must cover 90% of web length.

REACTIONS. (size) 2=0-3-8, 7=0-3-8
Max Horz 2=-173(LC 10)
Max Uplift 2=-51(LC 12), 7=-96(LC 13)
Max Grav 2=1681(LC 2), 7=1581(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2364/403, 3-4=-2100/475, 4-5=-2598/500, 5-6=-2007/356, 6-7=-2575/388
BOT CHORD 2-13=-163/1850, 11-13=-165/1837, 9-11=-655/3858, 7-9=-221/2070
WEBS 3-13=0/672, 3-11=-100/504, 4-11=-64/1029, 5-11=-1927/512, 5-9=-2027/479, 6-9=-67/1175

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-0-15 to 3-3-14, Interior(1) 3-3-14 to 9-10-0, Exterior(2R) 9-10-0 to 14-2-13, Interior(1) 14-2-13 to 18-9-8, Exterior(2R) 18-9-8 to 23-2-5, Interior(1) 23-2-5 to 30-6-8, Exterior(2R) 30-6-8 to 34-11-5, Interior(1) 34-11-5 to 35-7-15 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 51 lb uplift at joint 2 and 96 lb uplift at joint 7.
7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
8) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.

May 28,2025

ENGINEERING BY TRENCO
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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 90 Magnolia Hills
J0725-3385	B4	ROOF SPECIAL	1	1	I73772901
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Tue May 27 14:44:38 2025 Page 1
ID:3YJEg_u8zX16RsP?VvW_V6zd0wB-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

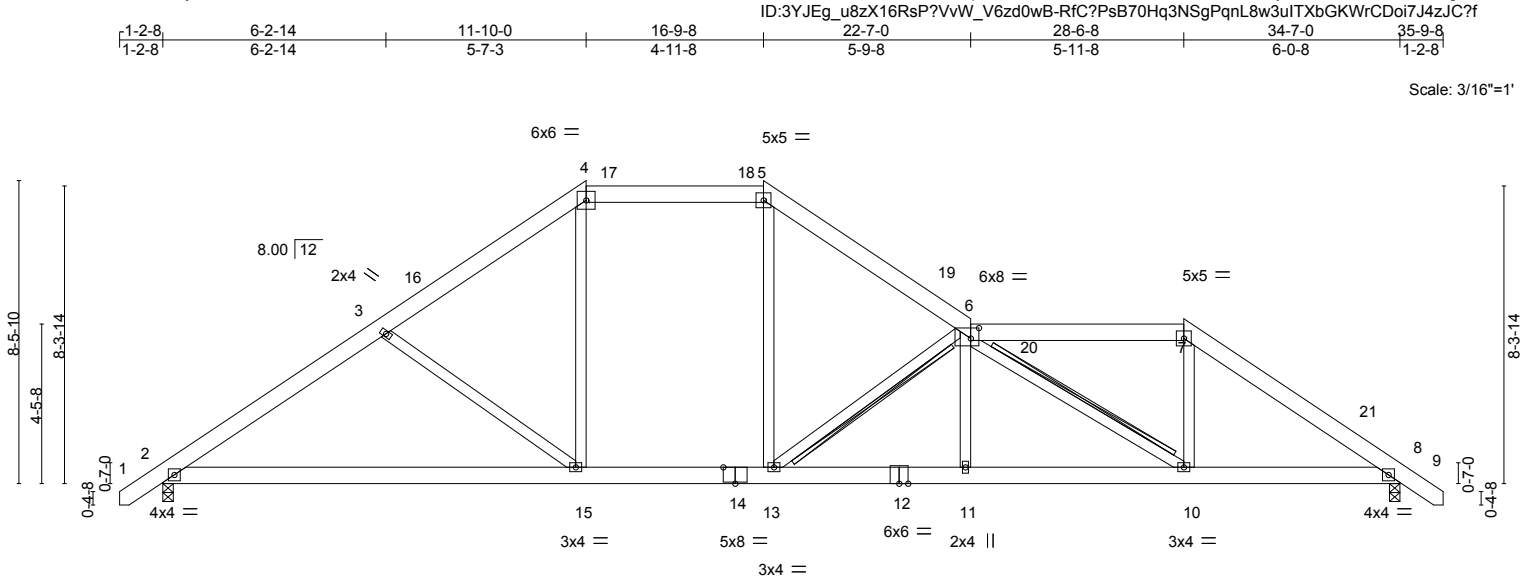


Plate Offsets (X,Y)-- [6:0-2-12,0-3-8], [14:0-4-0,Edge]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.28	Vert(LL)	-0.25	11-13	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.72	Vert(CT)	-0.41	11-13	>998	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.45	Horz(CT)	0.07	8	n/a	n/a		
BCDL	10.0	Code IRC2021/TPI2014		Matrix-S		Wind(LL)	0.17	11-13	>999	240	Weight: 244 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-11-11 oc purlins, except
2-0-0 oc purlins (5-7-5 max.): 4-5, 6-7.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS T-Brace: 2x4 SPF No.2 - 6-13, 6-10
Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c.,with 3in minimum end distance.
Brace must cover 90% of web length.

REACTIONS. (size) 2=0-3-8, 8=0-3-8
Max Horz 2=205(LC 11)
Max Uplift 2=-64(LC 12), 8=-105(LC 13)
Max Grav 2=1637(LC 19), 8=1584(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2288/485, 3-4=-2071/453, 4-5=-1663/441, 5-6=-2116/469, 6-7=-1861/413, 7-8=-2380/428
BOT CHORD 2-15=-289/1950, 13-15=-112/1682, 11-13=-426/3019, 10-11=-428/3009, 8-10=-225/1897
WEBS 3-15=-315/218, 4-15=-51/744, 5-13=-130/956, 6-13=-1648/411, 6-11=0/322, 6-10=-1378/251, 7-10=-68/993

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-0-15 to 3-3-14, Interior(1) 3-3-14 to 11-10-0, Exterior(2R) 11-10-0 to 16-2-13, Interior(1) 16-2-13 to 16-9-8, Exterior(2R) 16-9-8 to 21-2-5, Interior(1) 21-2-5 to 28-6-8, Exterior(2R) 28-6-8 to 32-11-5, Interior(1) 32-11-5 to 35-7-15 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 64 lb uplift at joint 2 and 105 lb uplift at joint 8.
7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
8) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.

May 28,2025

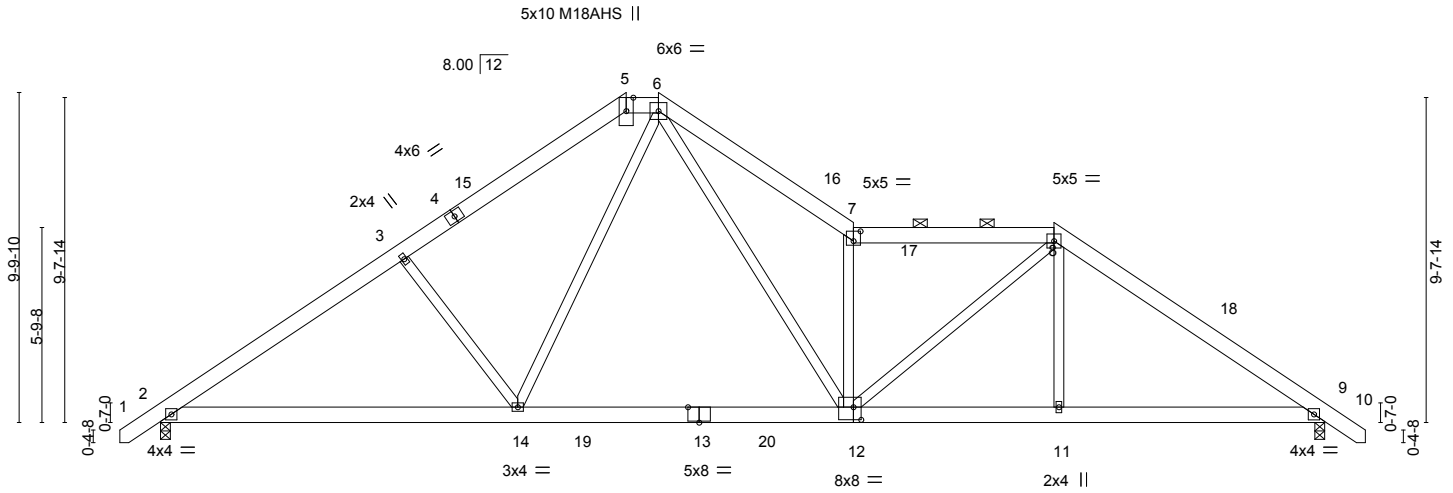
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 90 Magnolia Hills
J0725-3385	B5	ROOF SPECIAL	1	1	I73772902
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Tue May 27 14:44:39 2025 Page 1
ID:3YJEg_u8zX16RsP?VvW_V6zd0wB-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

1-2-8	7-2-14	13-10-0	14-9-8	20-7-0	26-6-8	34-7-0	35-9-8
1-2-8	7-2-14	6-7-3	0-11-8	5-9-8	5-11-8	8-0-8	1-2-8

Scale = 1:68.4



10-7-5	20-7-0	26-6-8	34-7-0
10-7-5	9-11-10	5-11-8	8-0-8

Plate Offsets (X,Y)-- [7:0-2-8,0-3-8], [12:0-2-12,0-4-8], [13:0-4-0,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.38	Vert(LL)	-0.24	12-14	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.55	Vert(CT)	-0.38	12-14	>999	240	M18AHS	186/179
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.99	Horz(CT)	0.05	9	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.09	12-14	>999	240	Weight: 248 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-0-10 oc purlins, except
2-0-0 oc purlins (4-11-1 max.): 5-6, 7-8.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-3-8, 9=0-3-8
Max Horz 2=237(LC 11)
Max Uplift 2=-75(LC 12), 9=-112(LC 13)
Max Grav 2=1672(LC 19), 9=1602(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2302/427, 3-5=-2115/462, 5-6=-1760/464, 6-7=-3079/713, 7-8=-2469/505, 8-9=-2292/412
BOT CHORD 2-14=-232/1981, 12-14=-50/1474, 11-12=-179/1799, 9-11=-178/1806
WEBS 3-14=-311/251, 6-14=-82/822, 6-12=-427/2031, 7-12=-1979/535, 8-12=-121/947, 8-11=0/301

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-0-15 to 3-3-14, Interior(1) 3-3-14 to 13-10-0, Exterior(2E) 13-10-0 to 14-9-8, Exterior(2R) 14-9-8 to 19-2-5, Interior(1) 19-2-5 to 26-6-8, Exterior(2R) 26-6-8 to 30-11-5, Interior(1) 30-11-5 to 35-7-15 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are MT20 plates unless otherwise indicated.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 75 lb uplift at joint 2 and 112 lb uplift at joint 9.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

May 28,2025

ENGINEERING BY TRENCO
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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 90 Magnolia Hills
J0725-3385	B6	ROOF SPECIAL	1	1	I73772903
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Tue May 27 14:44:39 2025 Page 1
ID:3YJEg_u8zX16RsP?VvW_V6zd0wB-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

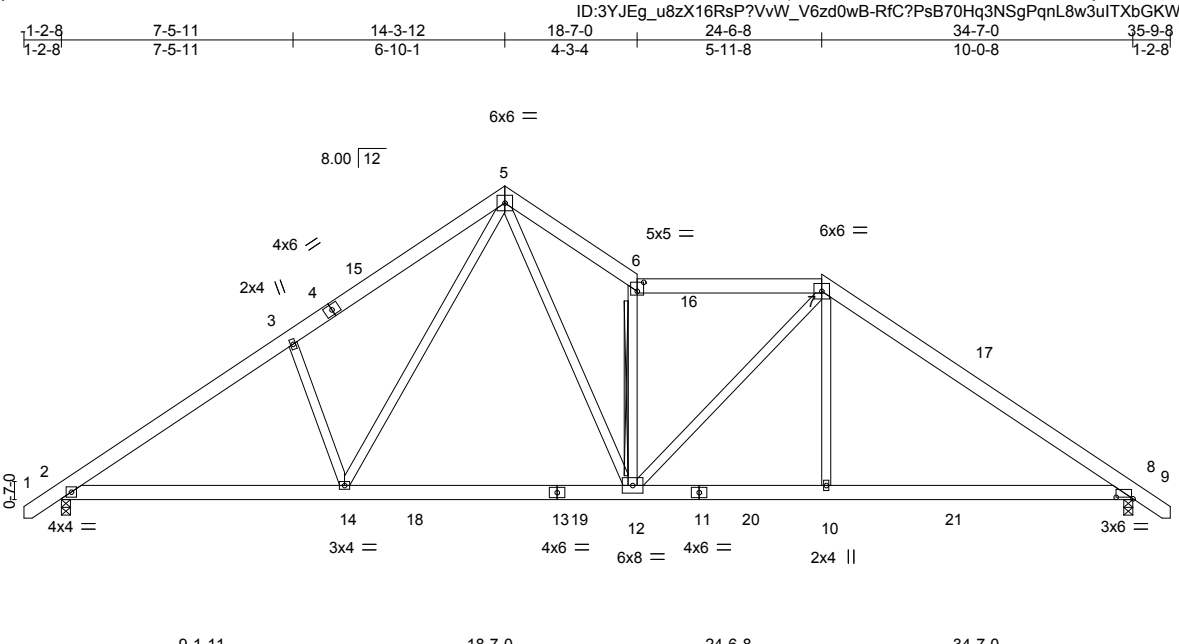


Plate Offsets (X,Y)-- [6:0-2-8,0-3-8], [8:0-6-8,0-0-9]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.61	Vert(LL)	-0.19	12-14	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.56	Vert(CT)	-0.29	12-14	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.60	Horz(CT)	0.06	8	n/a	n/a		
BCDL	10.0	Code IRC2021/TPI2014		Matrix-S		Wind(LL)	0.06	8-10	>999	240	Weight: 253 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-10-7 oc purlins, except
2-0-0 oc purlins (5-2-9 max.): 6-7.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS T-Brace: 2x4 SPF No.2 - 6-12
Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c.,with 3in minimum end distance.
Brace must cover 90% of web length.

REACTIONS. (size) 2=0-3-8, 8=0-3-8
Max Horz 2=246(LC 11)
Max Uplift 2=-78(LC 12), 8=-113(LC 13)
Max Grav 2=1734(LC 19), 8=1752(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2492/411, 3-5=-2392/532, 5-6=-2609/610, 6-7=-2185/458, 7-8=-2418/397
BOT CHORD 2-14=-217/2134, 12-14=-37/1543, 10-12=-138/1902, 8-10=-136/1913
WEBS 3-14=-408/289, 5-14=-181/966, 5-12=-322/1766, 6-12=-1616/433, 7-12=-56/502, 7-10=0/581

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-0-15 to 3-3-14, Interior(1) 3-3-14 to 14-3-12, Exterior(2E) 14-3-12 to 18-7-0, Interior(1) 18-7-0 to 24-6-8, Exterior(2R) 24-6-8 to 28-11-5, Interior(1) 28-11-5 to 35-7-15 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 78 lb uplift at joint 2 and 113 lb uplift at joint 8.
7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
8) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.

May 28,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 90 Magnolia Hills
J0725-3385	B7	ROOF SPECIAL	1	1	I73772904
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Tue May 27 14:44:40 2025 Page 1
ID:3YJEg_u8zX16RsP?VvW_V6zd0wB-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

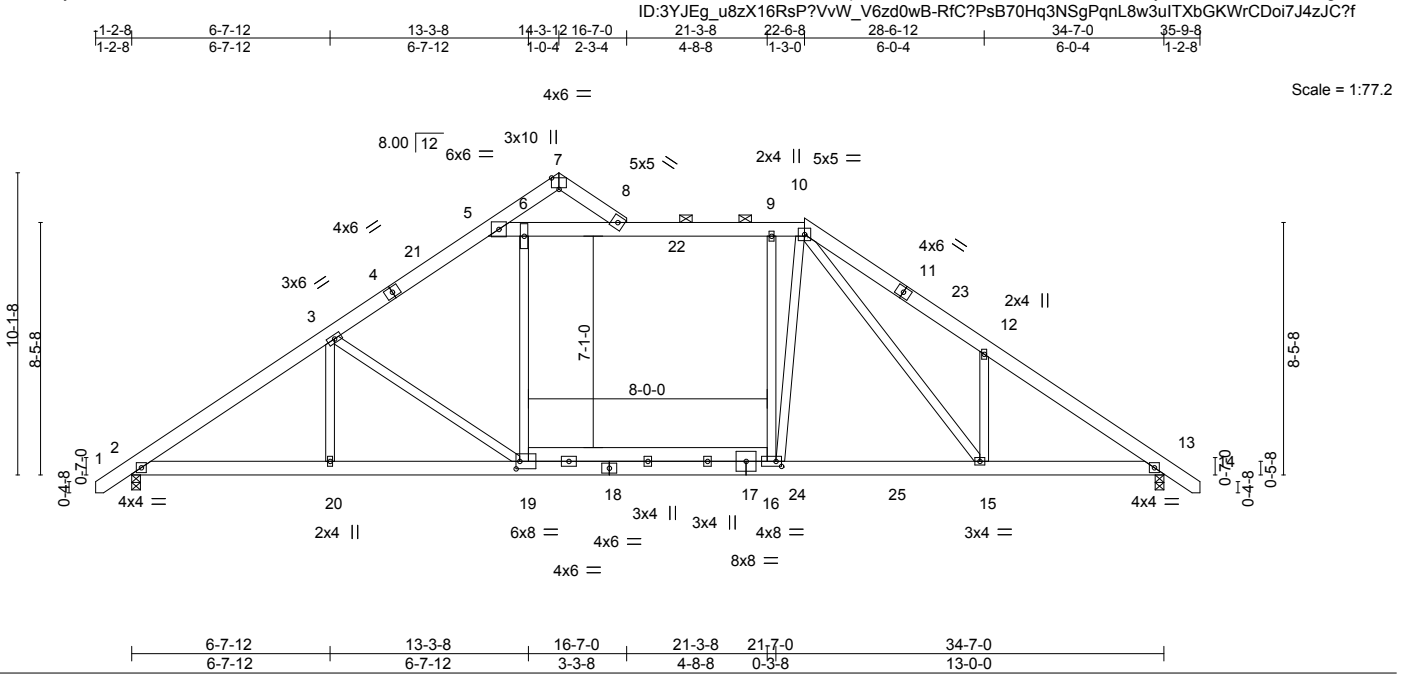


Plate Offsets (X,Y)-- [7:0-3-0,Edge], [16:0-2-4,0-2-0], [19:0-1-8,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.77	Vert(LL)	-0.30	15-16	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.80	Vert(CT)	-0.43	15-16	>965	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.44	Horz(CT)	0.07	13	n/a	n/a		
BCDL	10.0	Code IRC2021/TPI2014		Matrix-S		Wind(LL)	0.14	15-16	>999	240	Weight: 283 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-9-3 oc purlins, except 2-0-0 oc purlins (5-1-3 max.): 5-10.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-3-8, 13=0-3-8
Max Horz 2=-246(LC 10)
Max Uplift 2=-78(LC 12), 13=-113(LC 13)
Max Grav 2=1742(LC 19), 13=1743(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2484/394, 3-5=-2097/422, 5-6=-1723/418, 6-8=-1723/418, 8-9=-1809/430, 9-10=-1813/433, 10-12=-2615/579, 12-13=-2614/404
BOT CHORD 2-20=-207/2109, 19-20=-207/2109, 16-19=-101/1873, 15-16=-84/1766, 13-15=-212/2070
WEBS 6-19=0/592, 9-16=-313/274, 3-19=-414/186, 12-15=-301/267, 10-15=-249/774, 10-16=-235/738

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-0-15 to 3-3-14, Interior(1) 3-3-14 to 14-3-12, Exterior(2E) 14-3-12 to 16-7-0, Interior(1) 16-7-0 to 22-6-8, Exterior(2R) 22-6-8 to 26-11-5, Interior(1) 26-11-5 to 35-7-15 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 78 lb uplift at joint 2 and 113 lb uplift at joint 13.
7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

May 28,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 90 Magnolia Hills
J0725-3385	B8	ROOF SPECIAL	1	1	I73772905
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Tue May 27 14:44:40 2025 Page 1
ID:3YJEg_u8zX16RsP?VvW_V6zd0wB-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

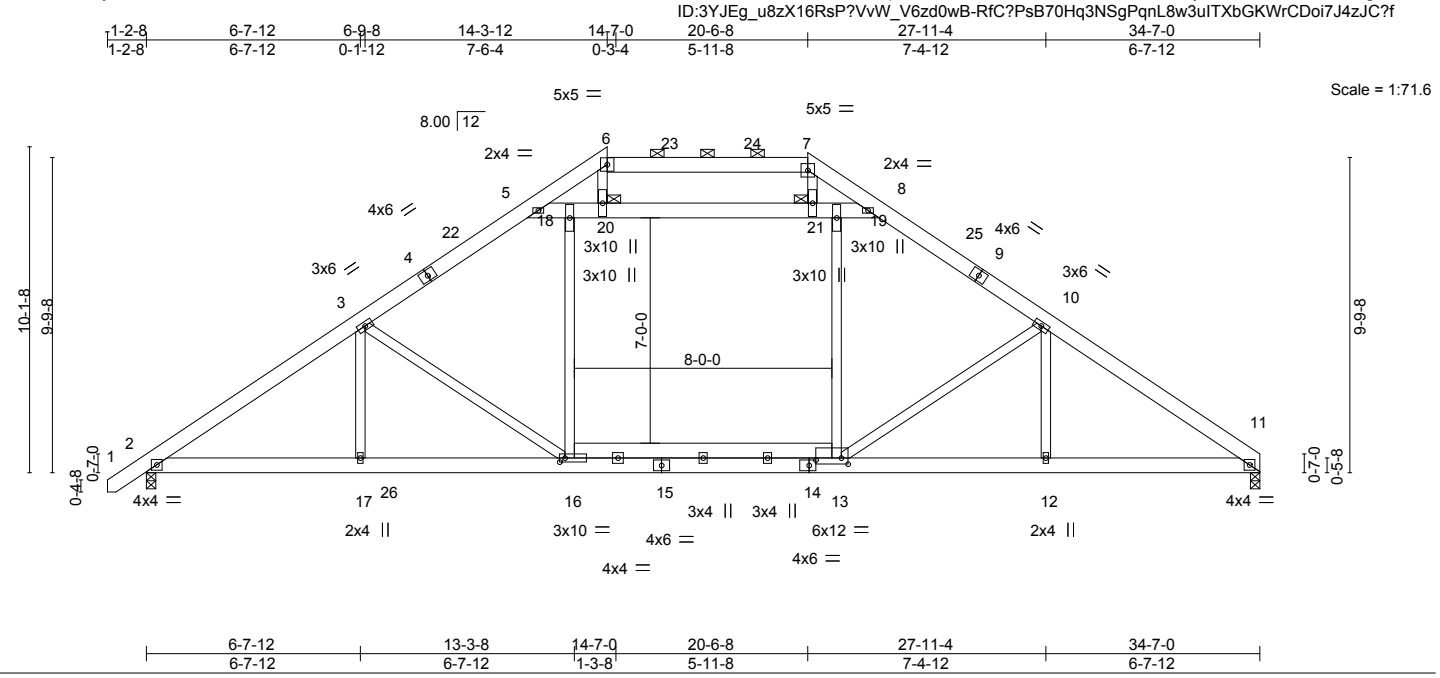


Plate Offsets (X,Y)-- [13:0-2-8,0-2-4], [14:0-2-8,0-2-0], [16:0-2-0,0-1-8]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.23	Vert(LL)	-0.21	16-17	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.62	Vert(CT)	-0.26	16-17	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.73	Horz(CT)	0.06	11	n/a	n/a		
BCDL	10.0	Code IRC2021/TPI2014		Matrix-S		Wind(LL)	0.12	12-13	>999	240	Weight: 284 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2 *Except*
5-8: 2x6 SP No.1

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-7-8 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 6-7.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
JOINTS 1 Brace at Jt(s): 20, 21

REACTIONS. (size) 2=0-3-8, 11=0-3-8
Max Horz 2=234(LC 9)
Max Uplift 2=-78(LC 12), 11=-59(LC 13)
Max Grav 2=1807(LC 19), 11=1665(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2691/410, 3-5=-2106/429, 5-6=-1271/263, 6-7=-1033/242, 7-8=-1332/267, 8-10=-2084/432, 10-11=-2512/411
BOT CHORD 2-17=-261/2293, 16-17=-261/2293, 13-16=-118/1717, 12-13=-245/1992, 11-12=-245/1992
WEBS 3-17=0/381, 16-18=-9/814, 13-19=-15/696, 3-16=-702/190, 10-12=0/261, 10-13=-547/195, 5-18=-653/217, 18-20=-653/217, 20-21=-690/218, 19-21=-642/219, 8-19=-642/219, 6-20=-14/493, 7-21=-17/560

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-0-15 to 3-3-14, Interior(1) 3-3-14 to 14-3-12, Exterior(2R) 14-3-12 to 18-8-9, Interior(1) 18-8-9 to 20-6-8, Exterior(2R) 20-6-8 to 24-11-5, Interior(1) 24-11-5 to 34-5-4 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 78 lb uplift at joint 2 and 59 lb uplift at joint 11.
7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

May 28,2025

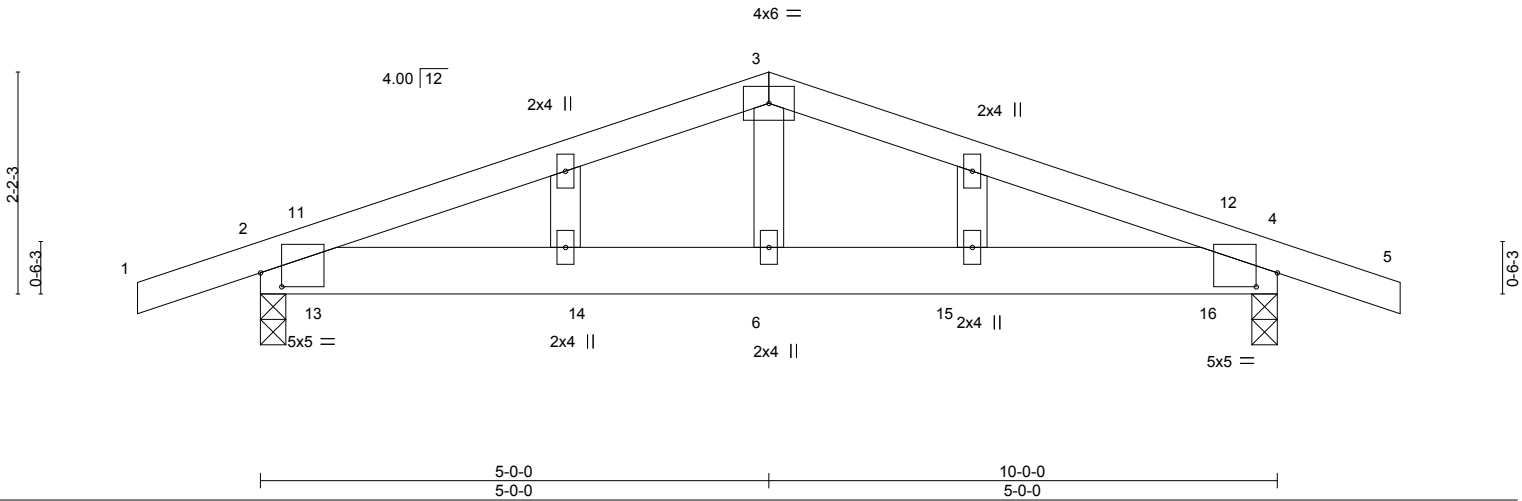
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 90 Magnolia Hills
J0725-3385	C1SG	GABLE	1	1	I73772906
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Tue May 27 14:44:41 2025 Page 1
ID:3YJEg_u8zX16RsP?VvW_V6zd0wB-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

-1-2-8 / 1-2-8 | 5-0-0 / 5-0-0 | 10-0-0 / 5-0-0 | 11-2-8 / 1-2-8

Scale = 1:22.7



5-0-0 / 5-0-0 | 10-0-0 / 5-0-0

Plate Offsets (X,Y)-- [2:0-2-8,0-1-10], [4:0-2-8,0-1-10]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.42	Vert(LL)	0.05	2-6	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	-0.02	6	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.06	Horz(CT)	-0.01	4	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 48 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2
OTHERS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-5-5 oc bracing.

REACTIONS. (size) 2=0-3-0, 4=0-3-0
Max Horz 2=42(LC 12)
Max Uplift 2=-270(LC 8), 4=-270(LC 9)
Max Grav 2=470(LC 1), 4=470(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-647/1554, 3-4=-647/1554
BOT CHORD 2-6=-1332/556, 4-6=-1332/556
WEBS 3-6=-660/232

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; Gable Roof; Common Truss; MWFRS (envelope) gable end zone and C-C Corner(3E) -1-2-8 to 3-2-5, Exterior(2N) 3-2-5 to 5-0-0, Corner(3R) 5-0-0 to 9-4-13, Exterior(2N) 9-4-13 to 11-2-8 zone; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable studs spaced at 2-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 270 lb uplift at joint 2 and 270 lb uplift at joint 4.

May 28,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 90 Magnolia Hills
J0725-3385	C2	COMMON	4	1	I73772907
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Tue May 27 14:44:41 2025 Page 1
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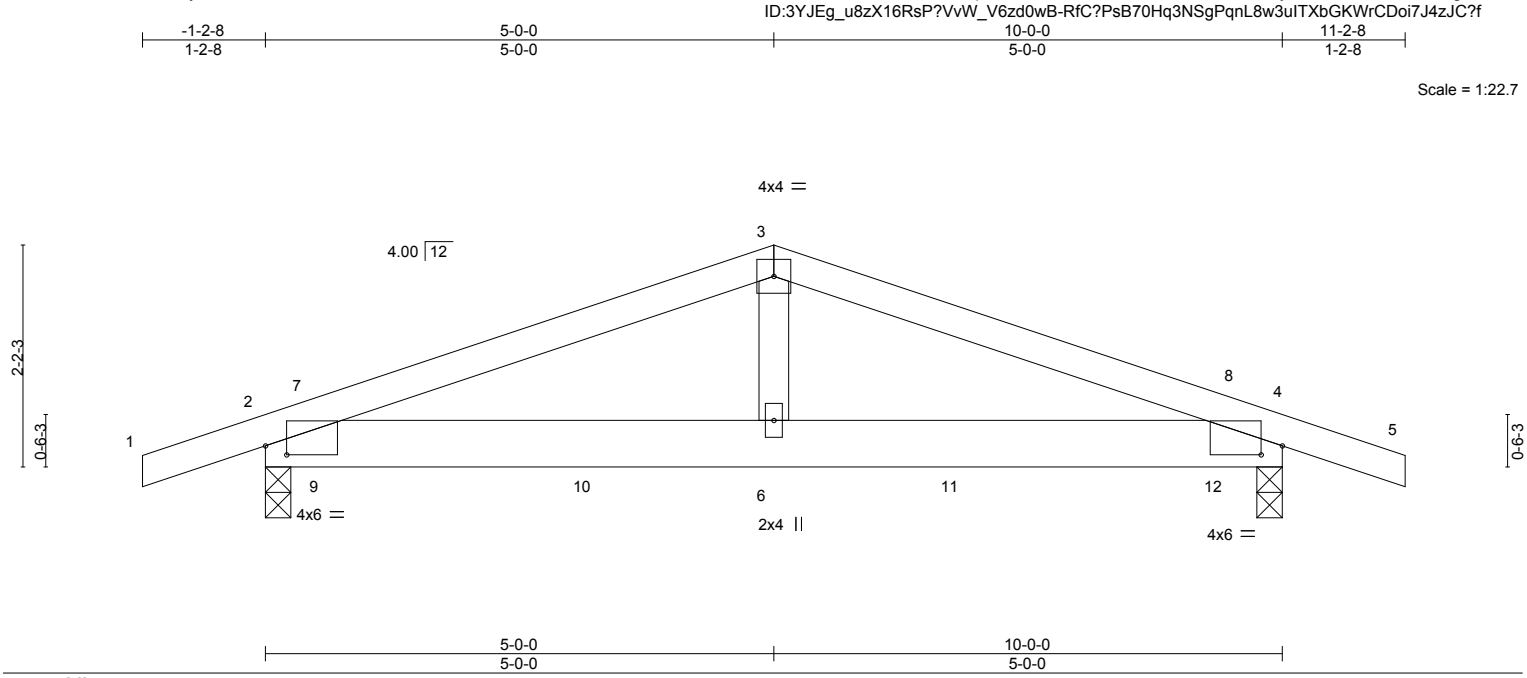

Plate Offsets (X,Y)-- [2:0-2-8,0-1-1], [4:0-2-8,0-1-1]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.35	Vert(LL)	-0.01	6	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.16	Vert(CT)	-0.02	6	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.05	Horz(CT)	-0.01	4	n/a	n/a		
BCDL	10.0	Code IRC2021/TPI2014		Matrix-S		Wind(LL)	0.04	2-6	>999	240	Weight: 45 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 7-3-14 oc bracing.

REACTIONS. (size) 2=0-3-0, 4=0-3-0
Max Horz 2=25(LC 12)
Max Uplift 2=-190(LC 8), 4=-190(LC 9)
Max Grav 2=470(LC 1), 4=470(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-647/1203, 3-4=-647/1203
BOT CHORD 2-6=-1038/556, 4-6=-1038/556
WEBS 3-6=-511/232

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-2-8 to 3-2-5, Interior(1) 3-2-5 to 5-0-0, Exterior(2R) 5-0-0 to 9-4-13, Interior(1) 9-4-13 to 11-2-8 zone; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 190 lb uplift at joint 2 and 190 lb uplift at joint 4.

May 28,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 90 Magnolia Hills
J0725-3385	P1	ROOF SPECIAL	7	1	I73772908
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Tue May 27 14:44:42 2025 Page 1
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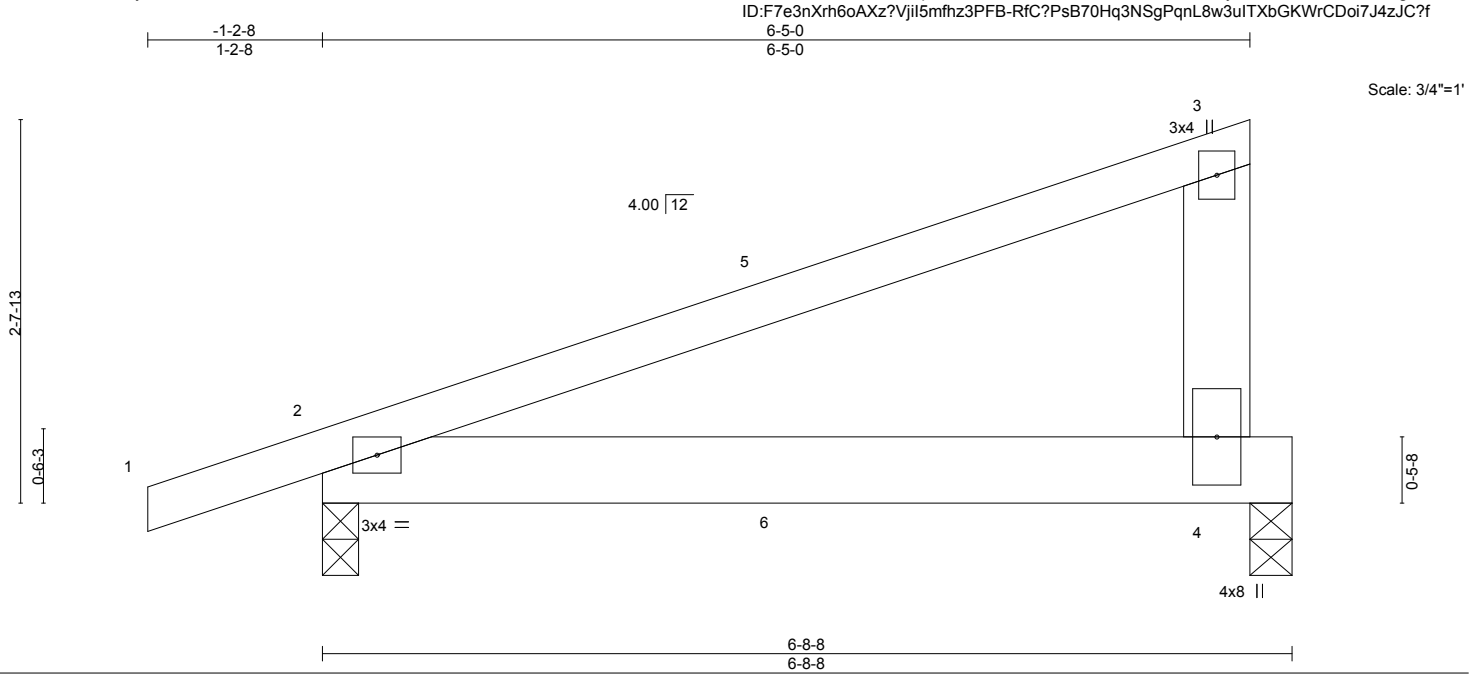

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.68	Vert(LL)	-0.02	2-4	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.29	Vert(CT)	-0.04	2-4	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.00		n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-P		Wind(LL)	0.07	2-4	>999	240	Weight: 32 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x6 SP No.1

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 4=0-3-8, 2=0-3-0
Max Horz 2=85(LC 8)
Max Uplift 4=-294(LC 8), 2=-134(LC 8)
Max Grav 4=734(LC 1), 2=331(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-4=-173/274

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-2-8 to 3-2-5, Interior(1) 3-2-5 to 6-2-4 zone; porch left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 294 lb uplift at joint 4 and 134 lb uplift at joint 2.
5) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 500 lb down and 1091 lb up at 6-2-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
6) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-60, 2-4=-20
Concentrated Loads (lb)
Vert: 4=-500(F)

May 28,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 90 Magnolia Hills
J0725-3385	P2	MONOPITCH	10	1	I73772909
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Tue May 27 14:44:42 2025 Page 1
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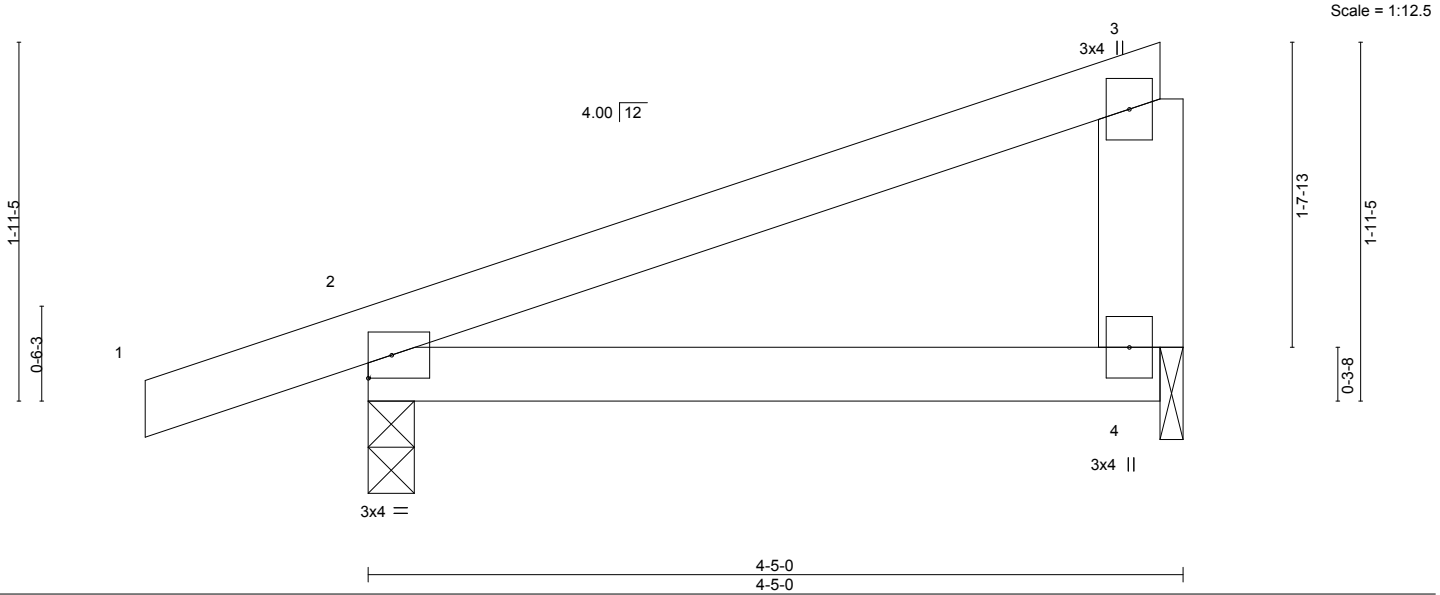
-1-2-8 / 1-2-8 | 4-5-0 / 4-5-0

Scale = 1:12.5



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.19	Vert(LL)	-0.01	2-4	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.15	Vert(CT)	-0.03	2-4	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00		n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-P		Wind(LL)	0.00	2	****	240	Weight: 18 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
WEBS 2x6 SP No.1

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-5-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-3-0, 4=0-1-8
Max Horz 2=62(LC 8)
Max Uplift 2=-63(LC 8), 4=-25(LC 12)
Max Grav 2=256(LC 1), 4=149(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-2-8 to 3-2-5, Interior(1) 3-2-5 to 4-2-4 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 63 lb uplift at joint 2 and 25 lb uplift at joint 4.

May 28,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 90 Magnolia Hills
J0725-3385	P3	MONOPITCH	3	1	I73772910
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Tue May 27 14:44:42 2025 Page 1
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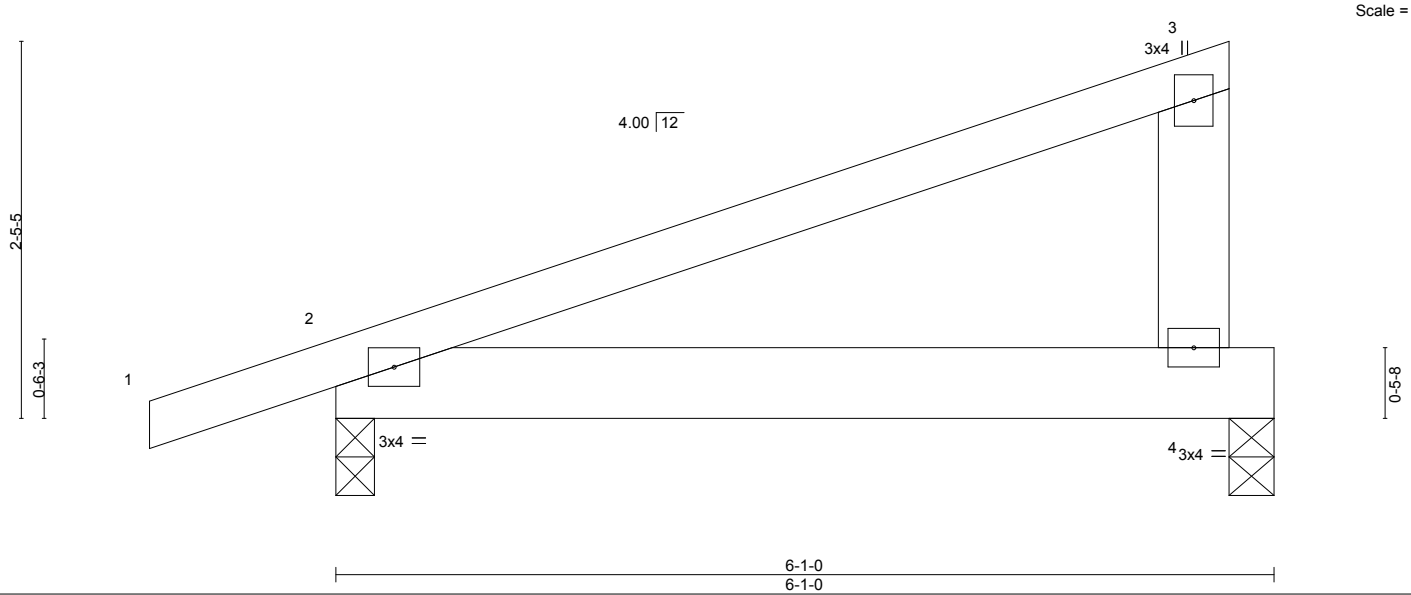
-1-2-8 / 1-2-8 | 5-9-8 / 5-9-8

Scale = 1:14.9



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.38	Vert(LL)	-0.01	2-4	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	-0.02	2-4	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00		n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-P		Wind(LL)	0.04	2-4	>999	240	Weight: 29 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SP No.1
BOT CHORD	2x6 SP No.1
WEBS	2x6 SP No.1

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 5-9-8 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 4=0-3-8, 2=0-3-0
Max Horz 2=78(LC 8)
Max Uplift 4=-90(LC 8), 2=-127(LC 8)
Max Grav 4=208(LC 1), 2=307(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-

1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-2-8 to 3-2-5, Interior(1) 3-2-5 to 5-6-12 zone; porch left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 90 lb uplift at joint 4 and 127 lb uplift at joint 2.

May 28,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 90 Magnolia Hills
J0725-3385	XA1	JACK-OPEN	14	1	I73772911
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Tue May 27 14:44:43 2025 Page 1
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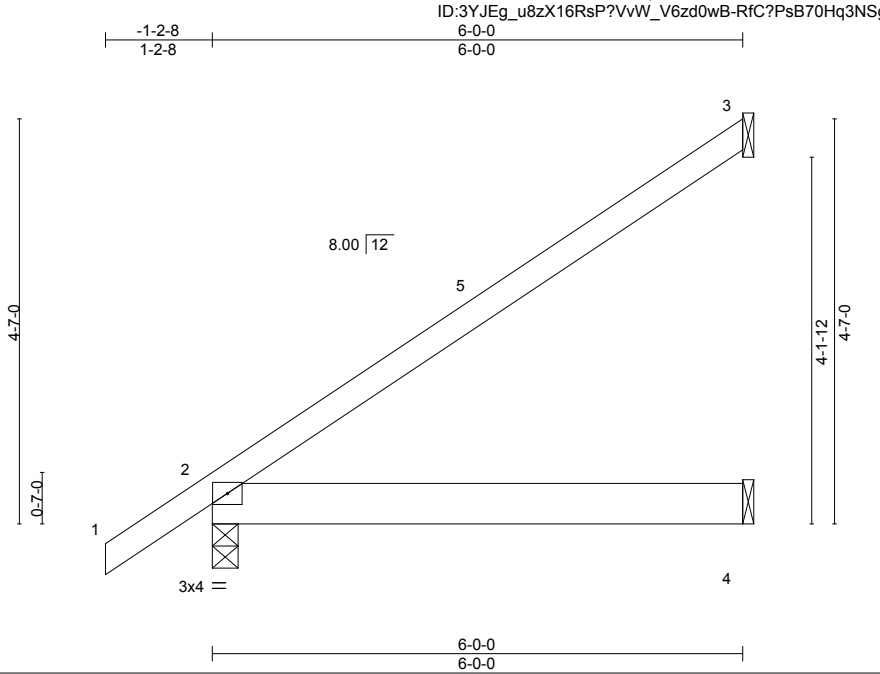

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.50	Vert(LL)	-0.02	2-4	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.13	Vert(CT)	-0.03	2-4	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-P		Wind(LL)	0.00	2	****	240	Weight: 27 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x6 SP No.1

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=151(LC 12)
Max Uplift 3=-105(LC 12)
Max Grav 3=184(LC 19), 2=322(LC 1), 4=116(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-2-8 to 3-2-5, Interior(1) 3-2-5 to 5-11-4 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 105 lb uplift at joint 3.

May 28,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 90 Magnolia Hills
J0725-3385	XB1	JACK-OPEN	10	1	I73772912
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Tue May 27 14:44:43 2025 Page 1
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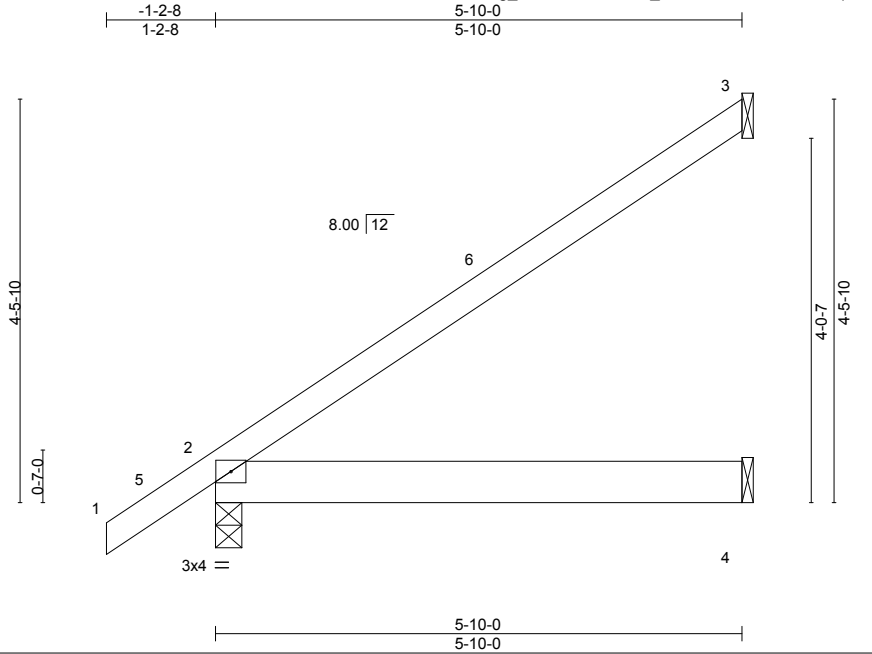

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.47	Vert(LL)	-0.01	2-4	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	-0.03	2-4	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-P		Wind(LL)	0.00	2	****	240	Weight: 27 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x6 SP No.1

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-10-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=147(LC 12)
Max Uplift 3=-102(LC 12)
Max Grav 3=178(LC 19), 2=316(LC 1), 4=113(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-2-8 to 3-2-5, Interior(1) 3-2-5 to 5-9-4 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 102 lb uplift at joint 3.

May 28,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 90 Magnolia Hills
J0725-3385	XB2	JACK-OPEN	2	1	I73772913
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Tue May 27 14:44:43 2025 Page 1
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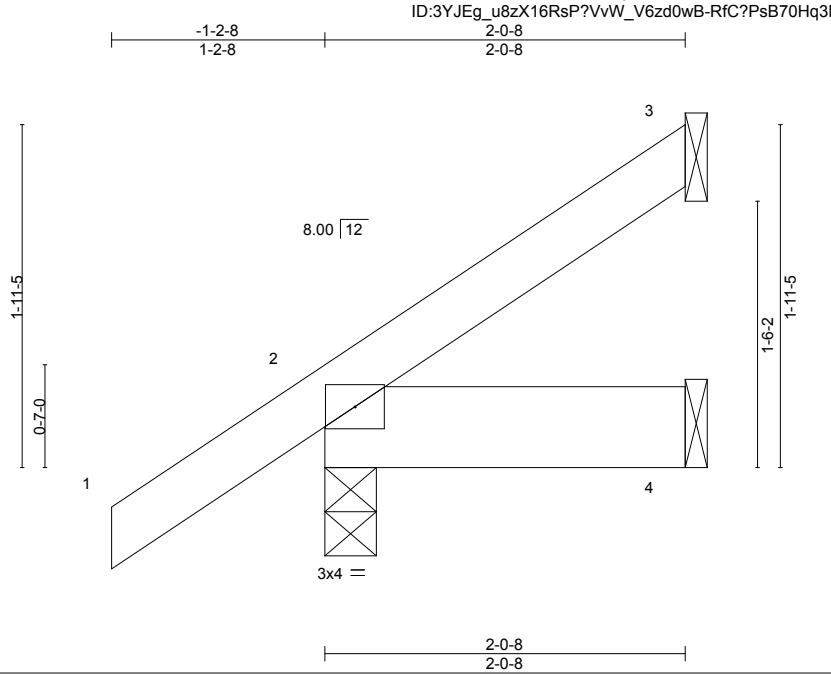

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.11	Vert(LL)	-0.00	2	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.01	Vert(CT)	-0.00	2	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-P		Wind(LL)	0.00	2	****	240	Weight: 11 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x6 SP No.1

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-0-8 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=65(LC 12)
Max Uplift 3=-29(LC 12), 2=-16(LC 12)
Max Grav 3=34(LC 19), 2=185(LC 1), 4=37(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 29 lb uplift at joint 3 and 16 lb uplift at joint 2.

May 28,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 90 Magnolia Hills
J0725-3385	YA1	JACK-OPEN	4	1	I73772914
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Tue May 27 14:44:44 2025 Page 1
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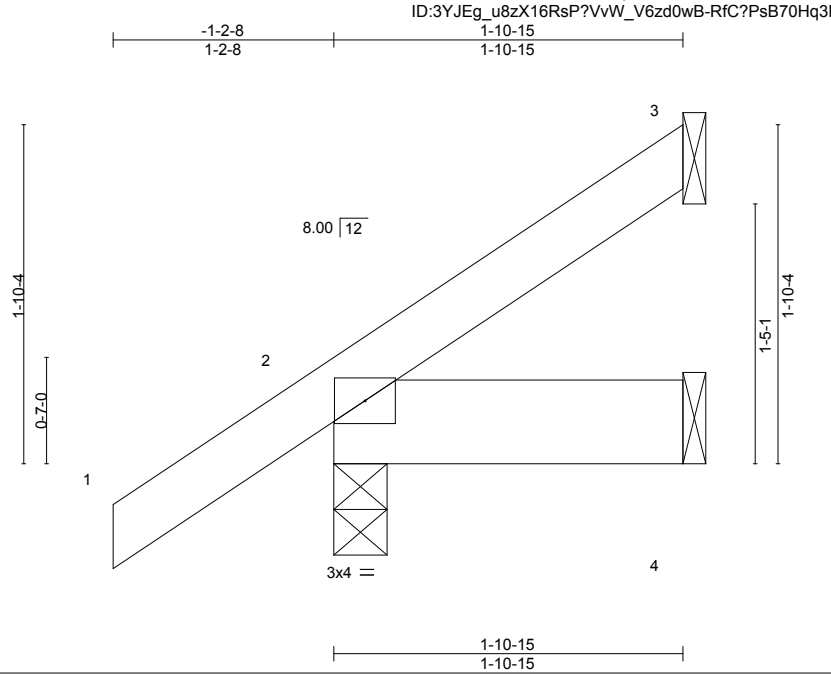

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.10	Vert(LL)	-0.00	2	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.01	Vert(CT)	-0.00	2	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-P		Wind(LL)	0.00	2	****	240	Weight: 10 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x6 SP No.1

BRACING-
TOP CHORD Structural wood sheathing directly applied or 1-10-15 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=63(LC 12)
Max Uplift 3=-29(LC 12), 2=-15(LC 12)
Max Grav 3=40(LC 19), 2=174(LC 1), 4=37(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 29 lb uplift at joint 3 and 15 lb uplift at joint 2.

May 28,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 90 Magnolia Hills
J0725-3385	YA2	JACK-OPEN	4	1	I73772915
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Tue May 27 14:44:44 2025 Page 1
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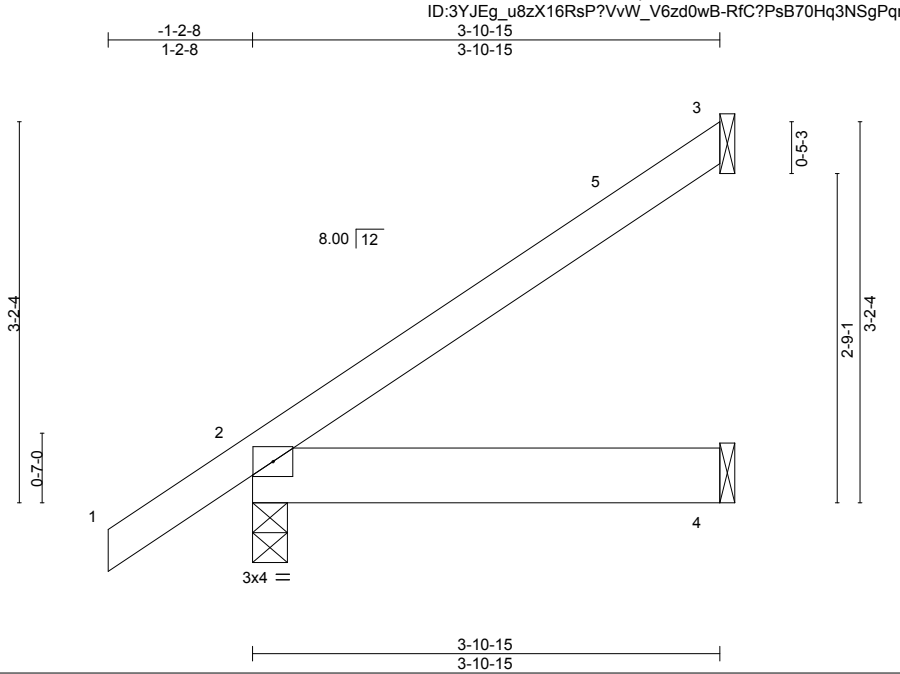

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	-0.00	2-4	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	-0.01	2-4	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-P		Wind(LL)	0.00	2	****	240	Weight: 19 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x6 SP No.1

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-10-15 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=106(LC 12)
Max Uplift 3=-66(LC 12), 2=-6(LC 12)
Max Grav 3=110(LC 19), 2=244(LC 1), 4=74(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-2-8 to 3-2-5, Interior(1) 3-2-5 to 3-10-3 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 66 lb uplift at joint 3 and 6 lb uplift at joint 2.

May 28,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 90 Magnolia Hills
J0725-3385	YA3	HALF HIP GIRDER	1	1	I73772916
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Tue May 27 14:44:44 2025 Page 1
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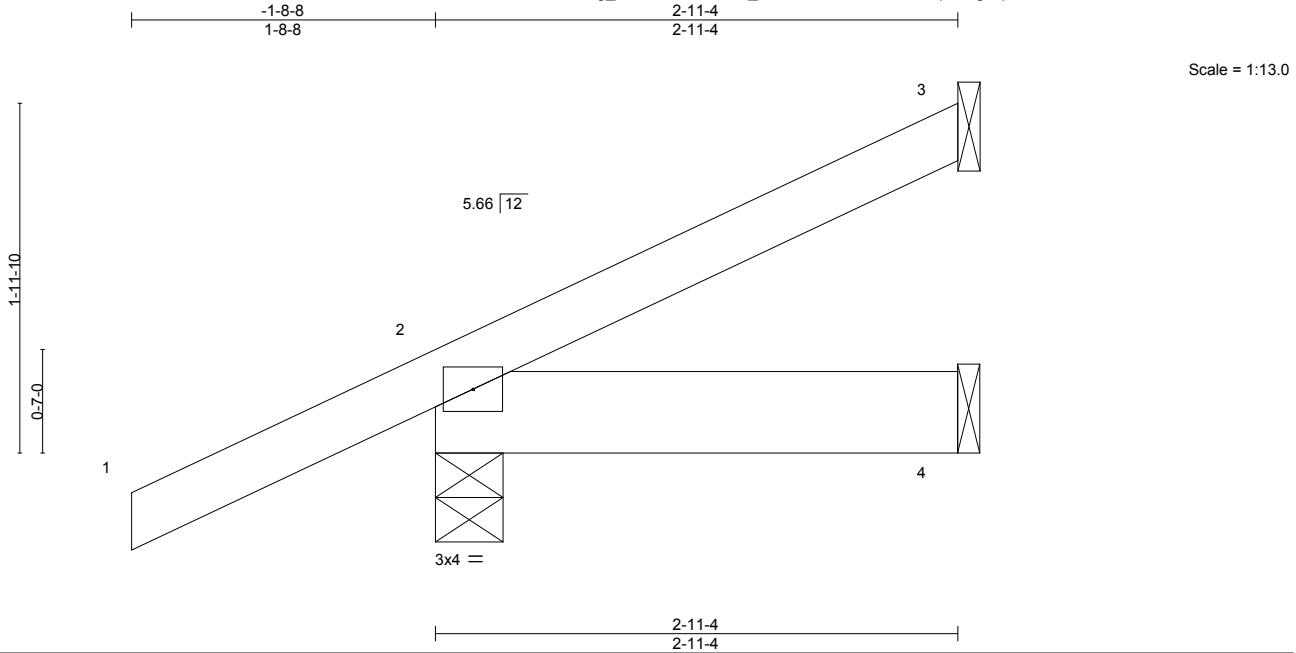

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.19	Vert(LL)	-0.00	2	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	-0.00	2-4	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-P		Wind(LL)	0.00	2	****	240	Weight: 15 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x6 SP No.1

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-11-4 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 3=Mechanical, 2=0-4-9, 4=Mechanical
Max Horz 2=66(LC 12)
Max Uplift 3=-31(LC 12), 2=-34(LC 12)
Max Grav 3=40(LC 1), 2=262(LC 1), 4=54(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 31 lb uplift at joint 3 and 34 lb uplift at joint 2.

May 28,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 90 Magnolia Hills
J0725-3385	YB1	JACK-OPEN	4	1	I73772917
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Tue May 27 14:44:45 2025 Page 1
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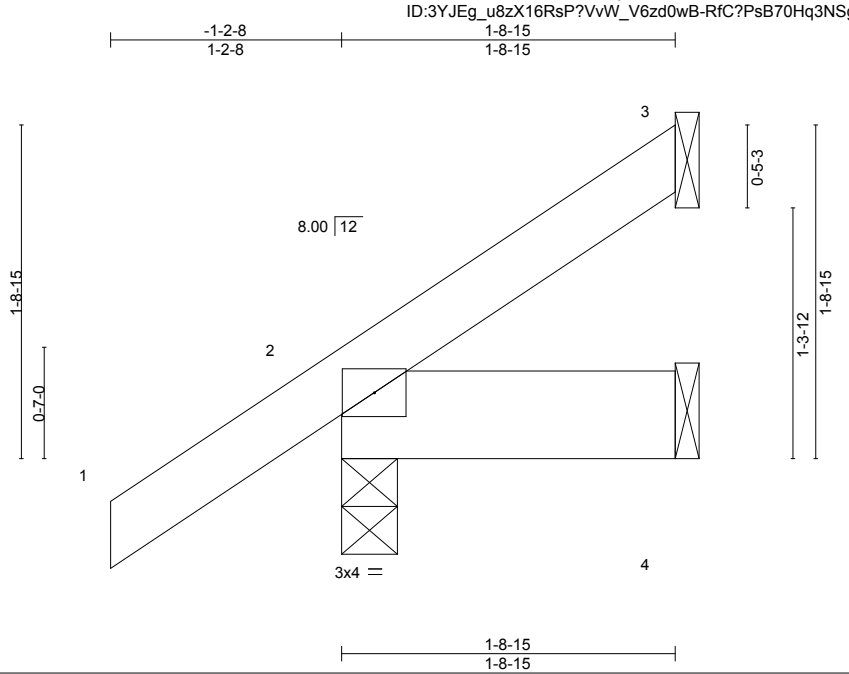


LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.10	Vert(LL)	-0.00	2	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.01	Vert(CT)	-0.00	2	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-P		Wind(LL)	0.00	2	****	240	Weight: 10 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x6 SP No.1

BRACING-
TOP CHORD Structural wood sheathing directly applied or 1-8-15 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=60(LC 12)
Max Uplift 3=-25(LC 12), 2=-17(LC 12)
Max Grav 3=32(LC 19), 2=169(LC 1), 4=34(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

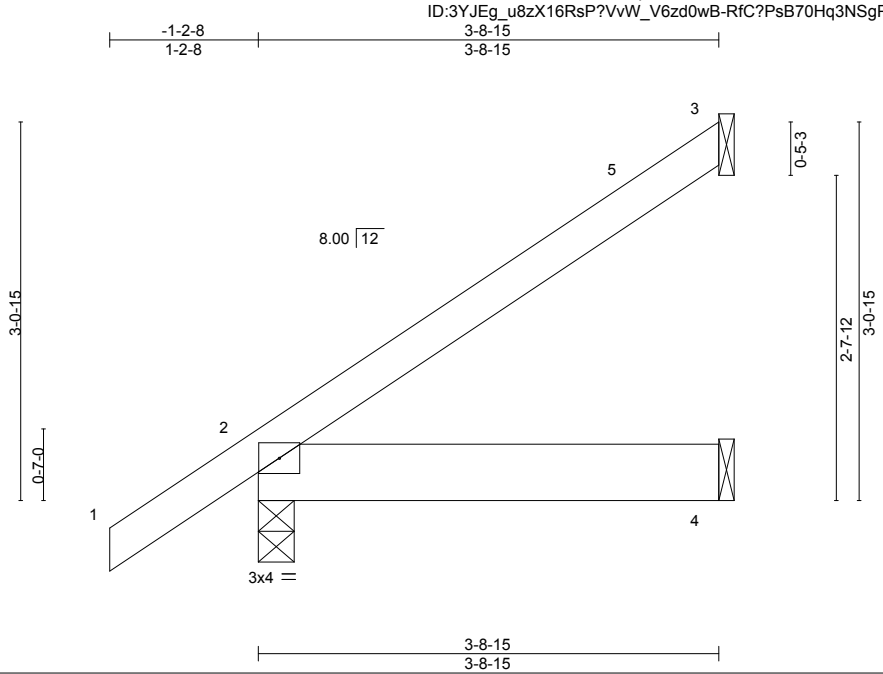
NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 25 lb uplift at joint 3 and 17 lb uplift at joint 2.

May 28,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 90 Magnolia Hills
J0725-3385	YB2	JACK-OPEN	4	1	I73772918
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Tue May 27 14:44:45 2025 Page 1
ID:3YJEg_u8zX16RsP?VvW_V6zd0wB-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.16	Vert(LL)	-0.00	2-4	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	-0.00	2-4	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-P		Wind(LL)	0.00	2	****	240	Weight: 18 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x6 SP No.1

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-8-15 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=102(LC 12)
Max Uplift 3=-63(LC 12), 2=-7(LC 12)
Max Grav 3=104(LC 19), 2=238(LC 1), 4=71(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

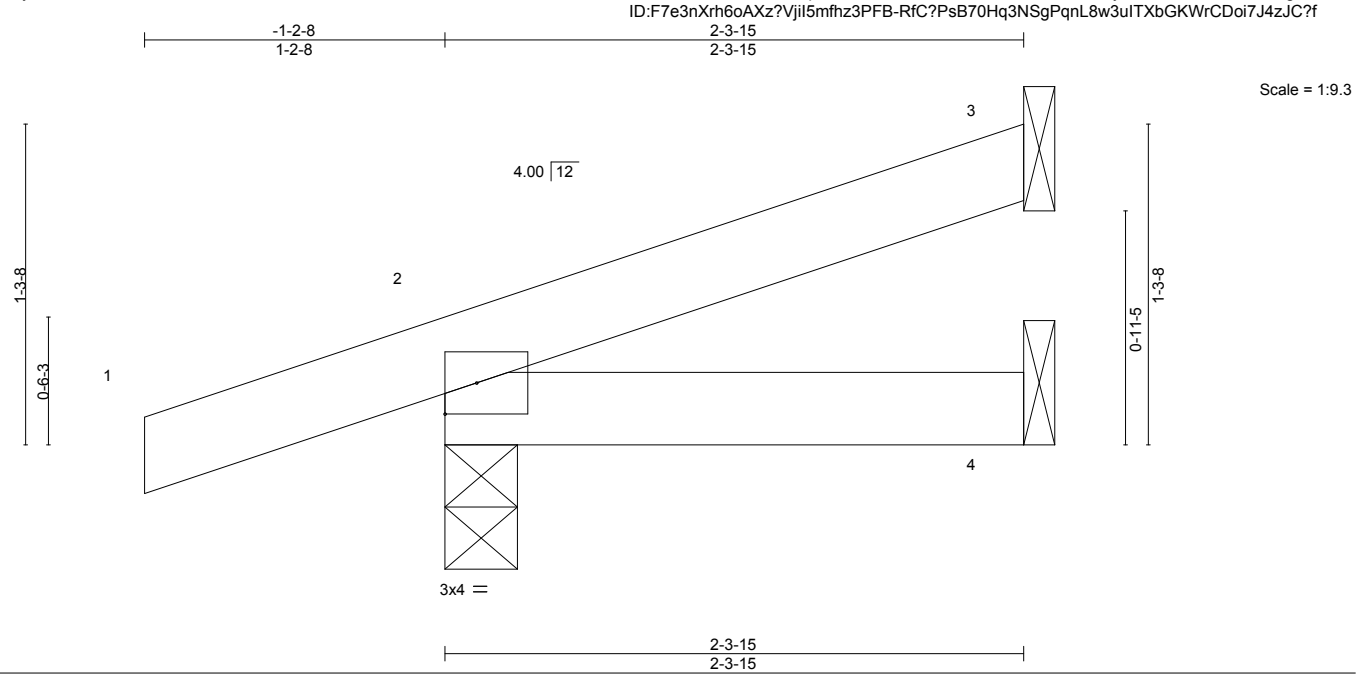
NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-2-8 to 3-2-5, Interior(1) 3-2-5 to 3-8-3 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 63 lb uplift at joint 3 and 7 lb uplift at joint 2.

May 28,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 90 Magnolia Hills
J0725-3385	YP1	JACK-OPEN	4	1	I73772919
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Tue May 27 14:44:45 2025 Page 1
ID:F7e3nXrh6oAXz?VjiI5mfhz3PFB-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	-0.00	2-4	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	-0.00	2-4	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-P		Wind(LL)	0.00	2-4	>999	240	Weight: 9 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-3-15 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=41(LC 8)
Max Uplift 3=-23(LC 12), 2=-90(LC 8), 4=-11(LC 8)
Max Grav 3=38(LC 1), 2=192(LC 1), 4=42(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

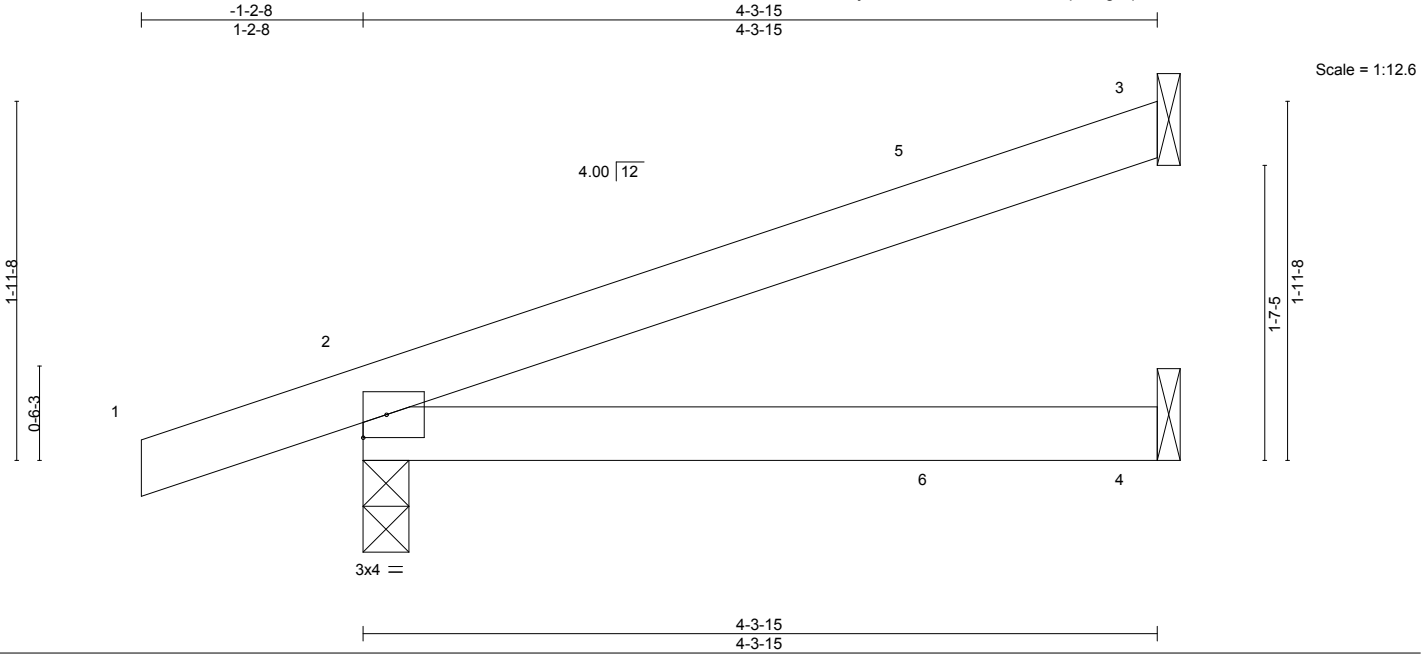
NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) zone; porch left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 23 lb uplift at joint 3, 90 lb uplift at joint 2 and 11 lb uplift at joint 4.

May 28,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 90 Magnolia Hills
J0725-3385	YP2	JACK-OPEN	2	1	I73772920
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Tue May 27 14:44:46 2025 Page 1
ID:F7e3nXrh6oAXz?VjiI5mfhz3PFB-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.24	Vert(LL)	-0.02	2-4	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.29	Vert(CT)	-0.03	2-4	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-P		Wind(LL)	0.06	2-4	>847	240	Weight: 15 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-3-15 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 3=Mechanical, 2=0-3-0, 4=Mechanical
Max Horz 2=62(LC 8)
Max Uplift 3=-50(LC 12), 2=-110(LC 8), 4=-21(LC 8)
Max Grav 3=111(LC 1), 2=259(LC 1), 4=83(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-2-8 to 3-2-5, Interior(1) 3-2-5 to 4-3-3 zone; porch left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 50 lb uplift at joint 3, 110 lb uplift at joint 2 and 21 lb uplift at joint 4.

May 28,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 90 Magnolia Hills
J0725-3385	ZA1	DIAGONAL HIP GIRDER	2	1	I73772921
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Tue May 27 14:44:46 2025 Page 1
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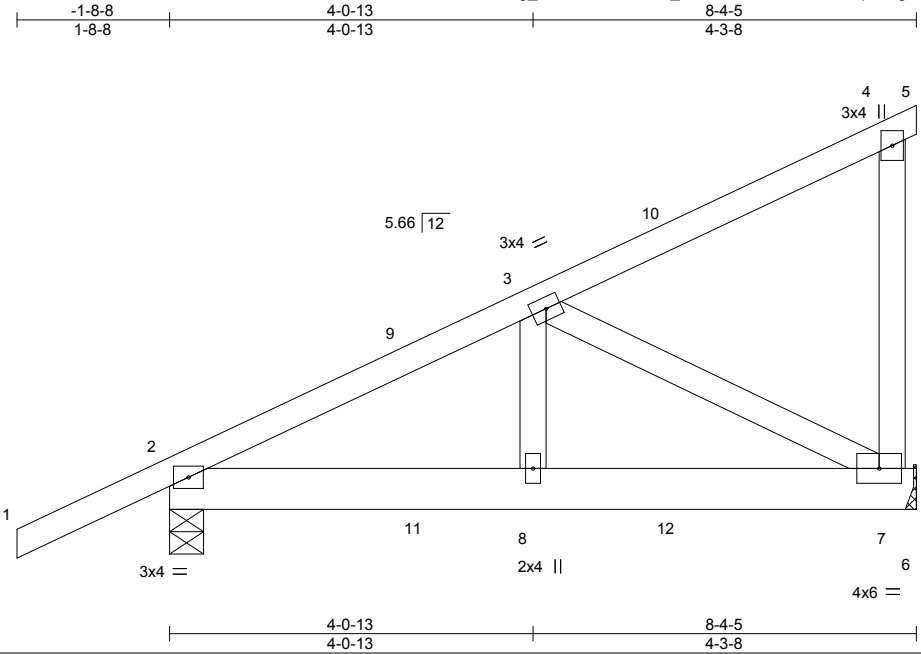

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.21	Vert(LL)	-0.00	7-8	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	-0.01	7-8	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.15	Horz(CT)	0.00	7	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-P		Wind(LL)	0.00	8	>999	240	Weight: 51 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 7=Mechanical, 2=0-4-9
Max Horz 2=150(LC 8)
Max Uplift 7=-110(LC 8), 2=-50(LC 8)
Max Grav 7=353(LC 31), 2=456(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-523/31
BOT CHORD 2-8=-118/381, 7-8=-118/381
WEBS 3-7=-430/133

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 110 lb uplift at joint 7 and 50 lb uplift at joint 2.
6) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 75 lb down and 33 lb up at 2-9-8, 75 lb down and 33 lb up at 2-9-8, and 107 lb down and 84 lb up at 5-7-7, and 107 lb down and 84 lb up at 5-7-7 on top chord , and 2 lb down at 2-9-8, 2 lb down at 2-9-8, and 20 lb down at 5-7-7, and 20 lb down at 5-7-7 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-60, 4-5=-20, 2-6=-20
Concentrated Loads (lb)
Vert: 10=-23(F=-11, B=-11) 12=-17(F=-9, B=-9)

May 28,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 90 Magnolia Hills
J0725-3385	ZB1	DIAGONAL HIP GIRDER	2	1	I73772922
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Tue May 27 14:44:47 2025 Page 1
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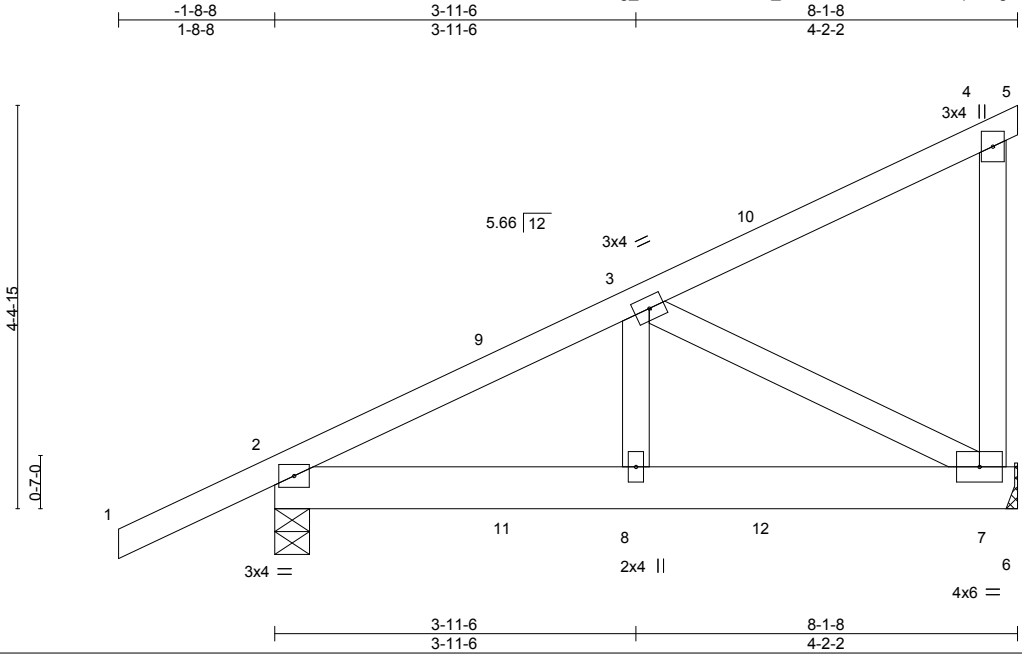

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.21	Vert(LL)	-0.00	7-8	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	-0.01	7-8	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.13	Horz(CT)	0.00	7	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-P		Wind(LL)	0.00	8	>999	240	Weight: 49 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 7=Mechanical, 2=0-4-9
Max Horz 2=146(LC 8)
Max Uplift 7=-104(LC 8), 2=-48(LC 8)
Max Grav 7=336(LC 31), 2=443(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-502/26
BOT CHORD 2-8=-112/361, 7-8=-112/361
WEBS 3-7=-408/127

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 104 lb uplift at joint 7 and 48 lb uplift at joint 2.
6) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 74 lb down and 28 lb up at 2-6-11, 74 lb down and 28 lb up at 2-6-11, and 104 lb down and 79 lb up at 5-4-10, and 104 lb down and 79 lb up at 5-4-10 on top chord, and 0 lb down at 2-6-11, 0 lb down at 2-6-11, and 18 lb down at 5-4-10, and 18 lb down at 5-4-10 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-60, 4-5=-20, 2-6=-20
Concentrated Loads (lb)
Vert: 10=-11(F=-6, B=-6) 12=-14(F=-7, B=-7)

May 28,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 90 Magnolia Hills
J0725-3385	ZB2	JACK-OPEN	1	1	I73772923
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Tue May 27 14:44:47 2025 Page 1
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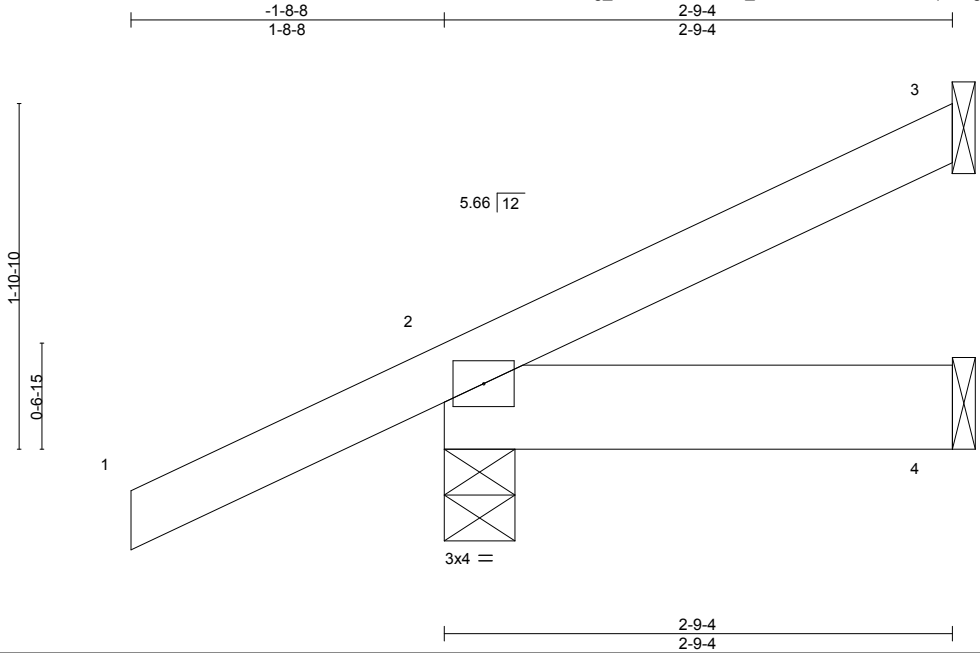

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.25	Vert(LL)	-0.00	2	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	-0.00	2-4	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-P		Wind(LL)	0.00	2	****	240	Weight: 14 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x6 SP No.1

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-9-4 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 3=Mechanical, 2=0-4-10, 4=Mechanical
Max Horz 2=64(LC 12)
Max Uplift 3=-28(LC 12), 2=-35(LC 12)
Max Grav 3=32(LC 1), 2=258(LC 1), 4=50(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Corner(3) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 28 lb uplift at joint 3 and 35 lb uplift at joint 2.

May 28,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 90 Magnolia Hills
J0725-3385	ZP1	DIAGONAL HIP GIRDER	1	1	I73772924
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Tue May 27 14:44:47 2025 Page 1
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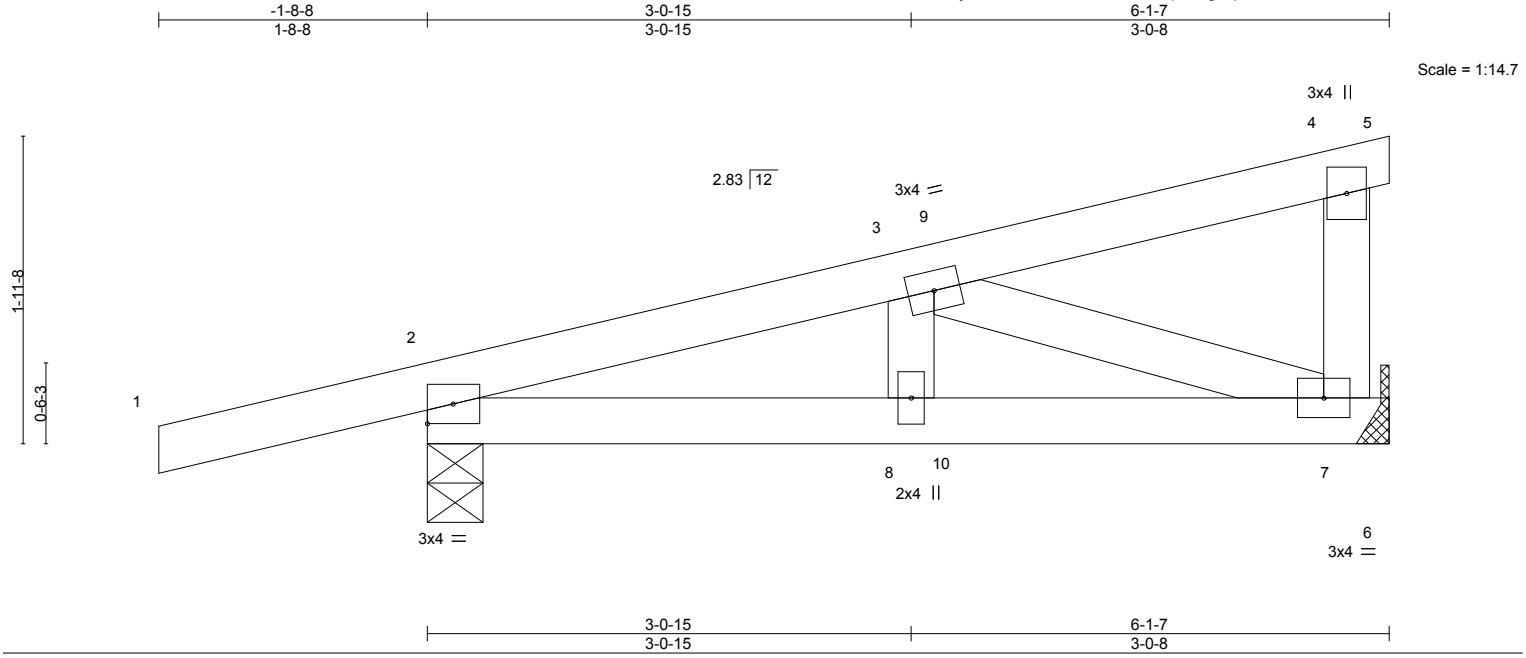

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.21	Vert(LL)	-0.00	8	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.21	Vert(CT)	-0.01	8	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.06	Horz(CT)	0.00	7	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-P		Wind(LL)	0.01	8	>999	240	Weight: 28 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
WEBS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 7=Mechanical, 2=0-4-4
Max Horz 2=63(LC 4)
Max Uplift 7=-55(LC 8), 2=-117(LC 4)
Max Grav 7=219(LC 1), 2=359(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-360/75
BOT CHORD 2-8=-103/308, 7-8=-103/308
WEBS 3-7=-325/109

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 55 lb uplift at joint 7 and 117 lb uplift at joint 2.
6) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 18 lb down and 24 lb up at 3-4-9, and 18 lb down and 24 lb up at 3-4-9 on top chord, and 4 lb down and 24 lb up at 3-4-9, and 4 lb down and 24 lb up at 3-4-9 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-60, 4-5=-20, 2-6=-20

May 28,2025

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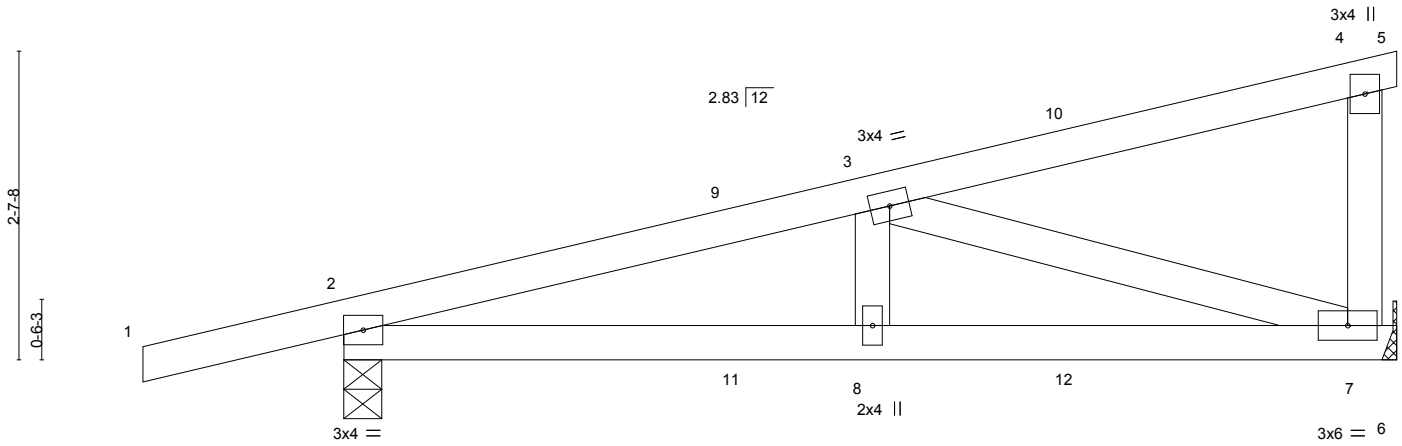
Job	Truss	Truss Type	Qty	Ply	Lot 90 Magnolia Hills
J0725-3385	ZP2	DIAGONAL HIP GIRDER	1	1	I73772925
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Tue May 27 14:44:48 2025 Page 1
ID:F7e3nXrh6oAXz?VjiI5mfhz3PFB-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

-1-8-8 / 1-8-8 | 4-5-14 / 4-5-14 | 8-11-6 / 4-5-8

Scale = 1:19.6



4-5-14 / 4-5-14 | 8-11-6 / 4-5-8

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.33	Vert(LL)	0.03	7-8	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.28	Vert(CT)	-0.04	7-8	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.25	Horz(CT)	0.01	7	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-P							Weight: 40 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
WEBS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 7=Mechanical, 2=0-3-14
Max Horz 2=84(LC 4)
Max Uplift 7=-174(LC 4), 2=-212(LC 4)
Max Grav 7=396(LC 1), 2=488(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-777/280
BOT CHORD 2-8=-315/710, 7-8=-315/710
WEBS 3-7=-742/329

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); porch left exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 174 lb uplift at joint 7 and 212 lb uplift at joint 2.
6) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 18 lb down and 24 lb up at 3-4-9, 18 lb down and 24 lb up at 3-4-9, and 46 lb down and 62 lb up at 6-2-8, and 46 lb down and 62 lb up at 6-2-8 on top chord, and 4 lb down and 24 lb up at 3-4-9, 4 lb down and 24 lb up at 3-4-9, and 26 lb down and 46 lb up at 6-2-8, and 26 lb down and 46 lb up at 6-2-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-60, 4-5=-20, 2-6=-20
Concentrated Loads (lb)
Vert: 10=-53(F=-26, B=-26) 12=-26(F=-13, B=-13)

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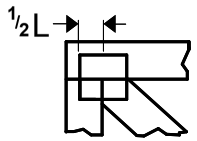
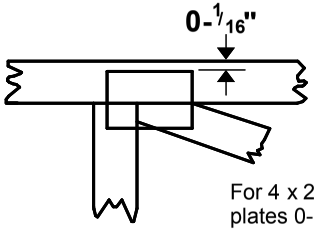
Symbols

PLATE LOCATION AND ORIENTATION



Center plate on joint unless x, y offsets are indicated. Dimensions are in ft-in-sixteenths. Apply plates to both sides of truss and fully embed teeth.



For 4 x 2 orientation, locate plates 0- 1/16" from outside edge of truss.

This symbol indicates the required direction of slots in connector plates.

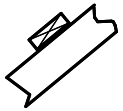
* Plate location details available in MiTek software or upon request.

PLATE SIZE

4 x 4

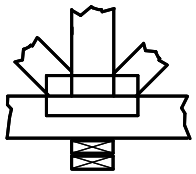
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



Indicated by symbol shown and/or by text in the bracing section of the output. Use T or I bracing if indicated.

BEARING

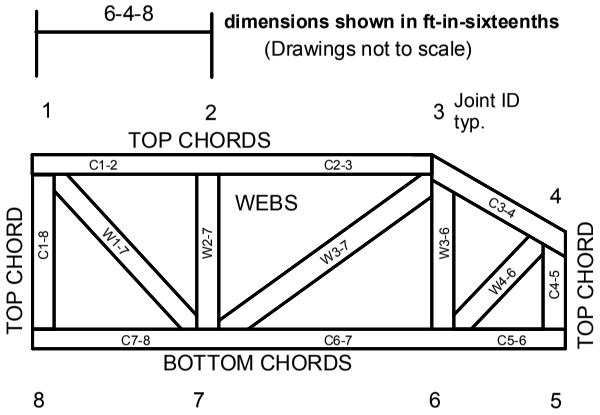


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-22: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses.

Numbering System



JOINTS ARE GENERALLY NUMBERED/LETTERED CLOCKWISE AROUND THE TRUSS STARTING AT THE JOINT FARTHEST TO THE LEFT.

CHORDS AND WEBS ARE IDENTIFIED BY END JOINT NUMBERS/LETTERS.

Product Code Approvals

ICC-ES Reports:

ESR-1988, ESR-2362, ESR-2685, ESR-3282
ESR-4722, ESL-1388

Design General Notes

Trusses are designed for wind loads in the plane of the truss unless otherwise shown.

Lumber design values are in accordance with ANSI/TPI 1 section 6.3 These truss designs rely on lumber values established by others.

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MiTek Engineering Reference Sheet: MII-7473 rev. 1/2/2023

General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TPI 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TPI 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.

ENGINEERING BY TRENCO
A MiTek Affiliate

RE: J0725-3386
Lot 90 Magnolia Hills

Trenco
818 Soundside Rd
Edenton, NC 27932

Site Information:

Customer: Project Name: J0725-3386
Lot/Block: Model:
Address: Subdivision:
City: State:

General Truss Engineering Criteria & Design Loads (Individual Truss Design Drawings Show Special Loading Conditions):

Design Code: IRC2021/TPI2014 Design Program: MiTek 20/20 8.6
Wind Code: N/A Wind Speed: N/A mph
Roof Load: N/A psf Floor Load: 55.0 psf

This package includes 9 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date
1	I73775456	ET1	5/28/2025
2	I73775457	ET2	5/28/2025
3	I73775458	F01	5/28/2025
4	I73775459	F02	5/28/2025
5	I73775460	F03	5/28/2025
6	I73775461	F04	5/28/2025
7	I73775462	F05	5/28/2025
8	I73775463	F07	5/28/2025
9	I73775464	F08	5/28/2025

The truss drawing(s) referenced above have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Comtech, Inc - Fayetteville.

Truss Design Engineer's Name: Gilbert, Eric

My license renewal date for the state of North Carolina is December 31, 2025.

North Carolina COA: C-0844

IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which were given to TRENCO. Any project specific information included is for TRENCO customers file reference purpose only, and was not taken into account in the preparation of these designs. TRENCO has not independently verified the applicability of the design parameters or the designs for any particular building. Before use, the building designer should verify applicability of design parameters and properly incorporate these designs into the overall building design per ANSI/TPI 1, Chapter 2.

May 28, 2025

Gilbert, Eric

Job	Truss	Truss Type	Qty	Ply	Lot 90 Magnolia Hills
J0725-3386	ET1	GABLE	1	1	I73775456
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Tue May 27 15:32:58 2025 Page 1
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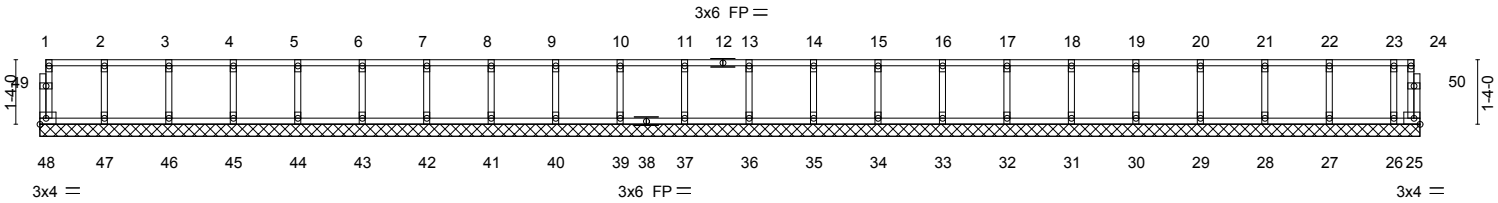
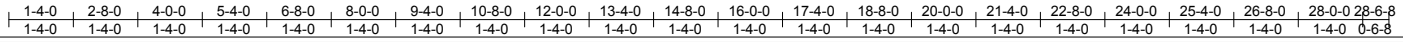
0-1-8 0-1-8

Scale: 1/4"=1'





LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.06	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	25	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-R							Weight: 124 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)
OTHERS 2x4 SP No.3(flat)

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 28-6-8.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 48, 25, 47, 46, 45, 44, 43, 42, 41, 40, 39, 37, 36, 35, 34, 33, 32, 31, 30, 29, 28, 27, 26

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-
1) All plates are 1.5x3 MT20 unless otherwise indicated.
2) Plates checked for a plus or minus 1 degree rotation about its center.
3) Gable requires continuous bottom chord bearing.
4) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
5) Gable studs spaced at 1-4-0 oc.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

May 28,2025

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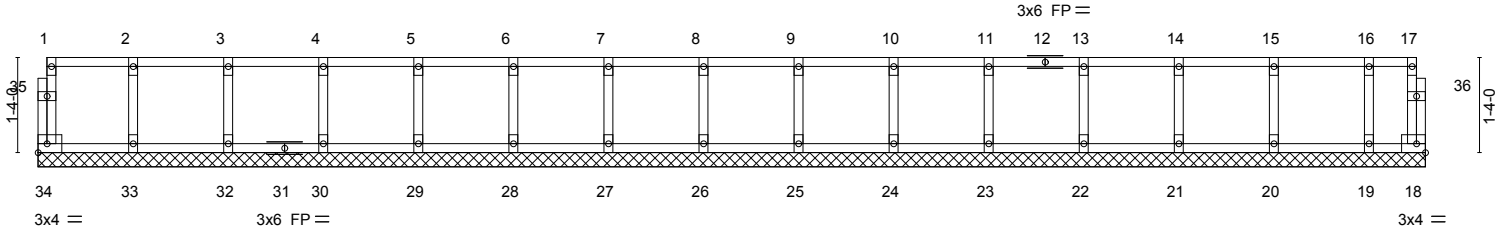
Job	Truss	Truss Type	Qty	Ply	Lot 90 Magnolia Hills
J0725-3386	ET2	GABLE	1	1	I73775457
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Tue May 27 15:32:58 2025 Page 1
ID:3YJEg_u8zX16RsP?VvW_V6zd0wB-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

0-1-8 0-1-8

Scale: 3/8"=1'



1-4-0	2-8-0	4-0-0	5-4-0	6-8-0	8-0-0	9-4-0	10-8-0	12-0-0	13-4-0	14-8-0	16-0-0	17-4-0	18-8-0	19-5-8
1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	0-9-8

LOADING (psf)		**SPACING-**	2-0-0	**CSI.**		**DEFL.**	in	(loc)	l/defl	L/d	**PLATES**	**GRIP**
TCLL	40.0	Plate Grip DOL	1.00	TC	0.06	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	18	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-R							Weight: 86 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)
OTHERS 2x4 SP No.3(flat)

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 19-5-8.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 34, 18, 33, 32, 30, 29, 28, 27, 26, 25, 24, 23, 22, 21, 20, 19

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-
1) All plates are 1.5x3 MT20 unless otherwise indicated.
2) Plates checked for a plus or minus 1 degree rotation about its center.
3) Gable requires continuous bottom chord bearing.
4) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
5) Gable studs spaced at 1-4-0 oc.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

May 28,2025

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 90 Magnolia Hills
J0725-3386	F01	Floor	5	1	I73775458
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Tue May 27 15:32:59 2025 Page 1
ID:3YJEg_u8zX16RsP?VvW_V6zd0wB-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

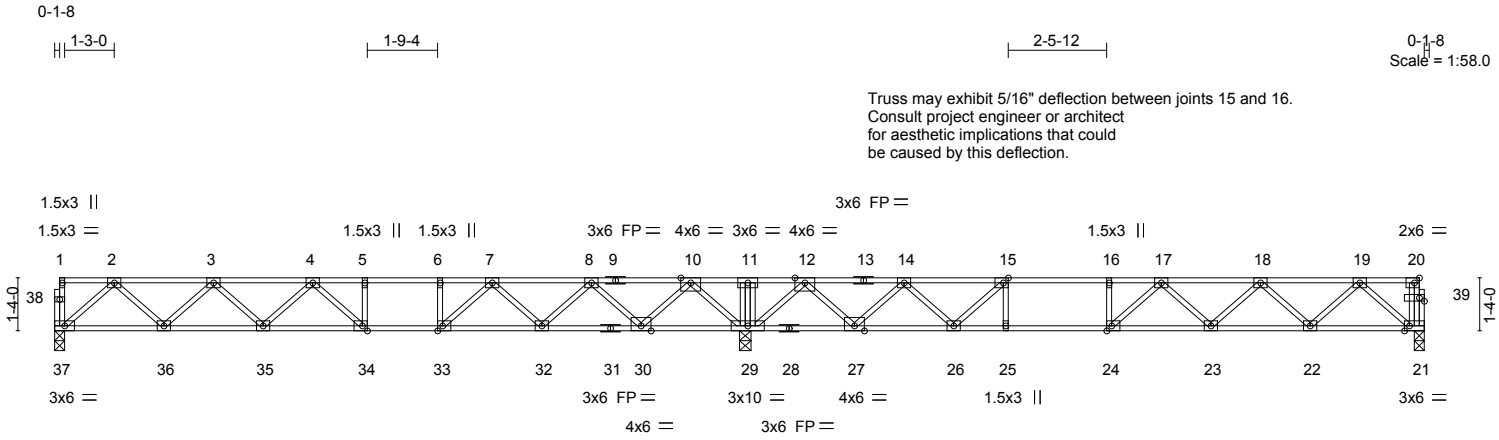

Plate Offsets (X,Y)-- [15:0-1-8,Edge], [20:0-1-8,Edge], [21:0-1-8,Edge], [24:0-1-8,Edge], [33:0-1-8,Edge], [34:0-1-8,Edge], [39:0-1-8,0-1-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.90	Vert(LL)	-0.27	23-24	>742	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.85	Vert(CT)	-0.37	23-24	>554	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.57	Horz(CT)	0.06	21	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 178 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(flat) *Except*
21-28: 2x4 SP 2400F 2.0E(flat)
WEBS 2x4 SP No.3(flat)

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 30-32,29-30,27-29,26-27.

REACTIONS. (size) 37=0-3-0, 29=0-3-8, 21=0-3-0
Max Grav 37=843(LC 3), 29=2186(LC 1), 21=830(LC 4)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1503/0, 3-4=-2386/0, 4-5=-2643/0, 5-6=-2643/0, 6-7=-2643/0, 7-8=-1780/88, 8-10=-506/546, 10-11=0/2201, 11-12=0/2201, 12-14=-681/785, 14-15=-1899/278, 15-16=-2534/0, 16-17=-2534/0, 17-18=-2402/0, 18-19=-1542/0
BOT CHORD 36-37=0/903, 35-36=0/2079, 34-35=0/2643, 33-34=0/2643, 32-33=0/2272, 30-32=-286/1285, 29-30=-976/0, 27-29=-1165/0, 26-27=-526/1397, 25-26=0/2534, 24-25=0/2534, 23-24=0/2610, 22-23=0/2105, 21-22=0/965
WEBS 2-37=-1200/0, 2-36=0/834, 3-36=-802/0, 3-35=0/427, 4-35=-357/9, 4-34=-350/210, 10-29=-1600/0, 10-30=0/1200, 8-30=-1156/0, 8-32=0/754, 7-32=-768/0, 7-33=0/811, 6-33=-384/0, 19-21=-1233/0, 19-22=0/803, 18-22=-783/0, 18-23=0/413, 17-23=-290/84, 12-29=-1578/0, 12-27=0/1136, 14-27=-1077/0, 14-26=0/810, 15-26=-1102/0, 17-24=-451/56, 15-25=0/378

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x4 MT20 unless otherwise indicated.
3) Plates checked for a plus or minus 1 degree rotation about its center.
4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
5) CAUTION, Do not erect truss backwards.

May 28,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 90 Magnolia Hills
J0725-3386	F02	Floor	3	1	I73775459
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Tue May 27 15:33:00 2025 Page 1
ID:3YJEg_u8zX16RsP?VvW_V6zd0wB-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

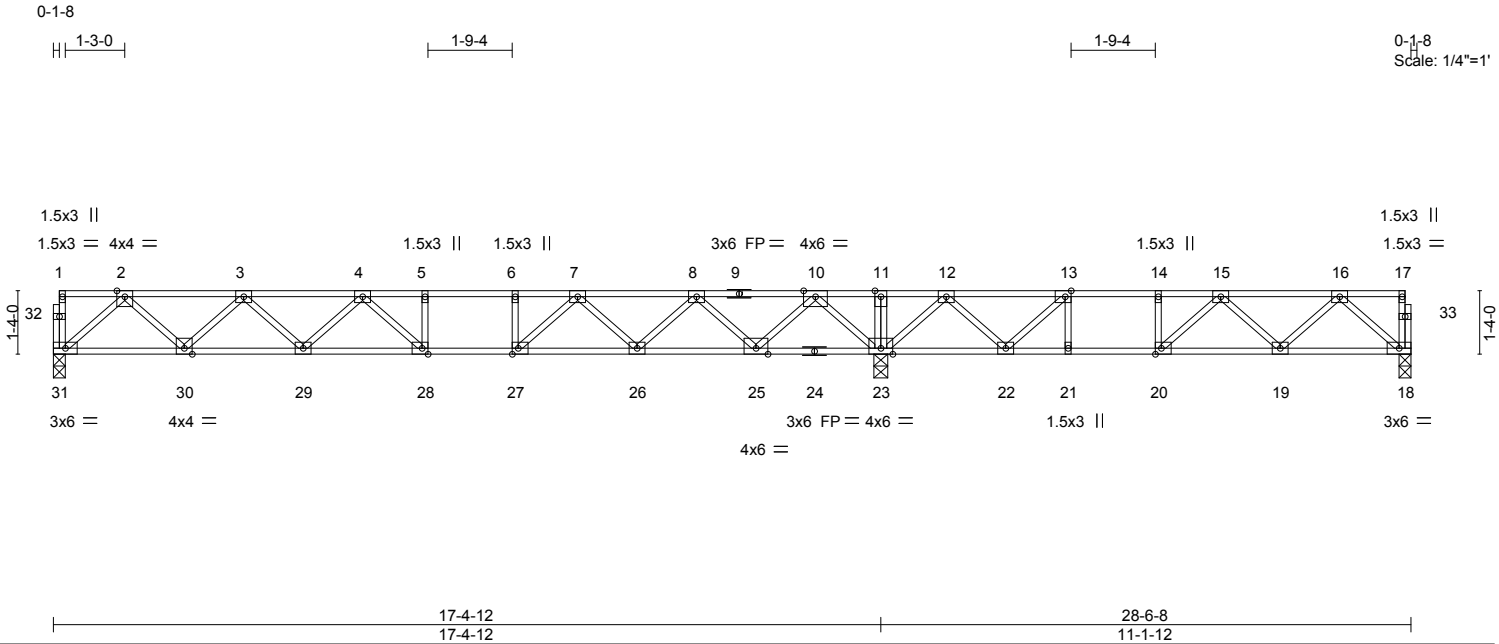

Plate Offsets (X,Y)-- [13:0-1-8,Edge], [20:0-1-8,Edge], [27:0-1-8,Edge], [28:0-1-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.70	Vert(LL)	-0.18	28-29	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.75	Vert(CT)	-0.25	28-29	>818	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.54	Horz(CT)	0.04	18	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 147 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS. (size) 31=0-3-0, 18=0-3-0, 23=0-3-8
Max Grav 31=854(LC 10), 18=536(LC 4), 23=1831(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1528/0, 3-4=-2433/0, 4-5=-2723/0, 5-6=-2723/0, 6-7=-2723/0, 7-8=-1895/0, 8-10=-640/19, 10-11=0/1619, 11-12=0/1619, 12-13=-534/758, 13-14=-1022/387, 14-15=-1022/387, 15-16=-850/32
BOT CHORD 30-31=0/916, 29-30=0/2115, 28-29=0/2703, 27-28=0/2723, 26-27=0/2373, 25-26=0/1410, 23-25=-494/0, 22-23=-1043/109, 21-22=-387/1022, 20-21=-387/1022, 19-20=-137/1078, 18-19=0/563
WEBS 2-31=-1217/0, 2-30=0/850, 3-30=-818/0, 3-29=0/442, 4-29=-375/0, 4-28=-244/309, 10-23=-1497/0, 10-25=0/1144, 8-25=-1106/0, 8-26=0/708, 7-26=-708/0, 7-27=0/705, 6-27=-338/0, 16-18=-747/0, 16-19=-46/399, 15-19=-318/146, 12-23=-1013/0, 12-22=0/766, 13-22=-925/0, 15-20=-411/0, 13-21=0/267

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x4 MT20 unless otherwise indicated.
3) Plates checked for a plus or minus 1 degree rotation about its center.
4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
5) CAUTION, Do not erect truss backwards.

May 28,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 90 Magnolia Hills
J0725-3386	F03	FLOOR	9	1	I73775460
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Tue May 27 15:33:00 2025 Page 1
ID:3YJEg_u8zX16RsP?VvW_V6zd0wB-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

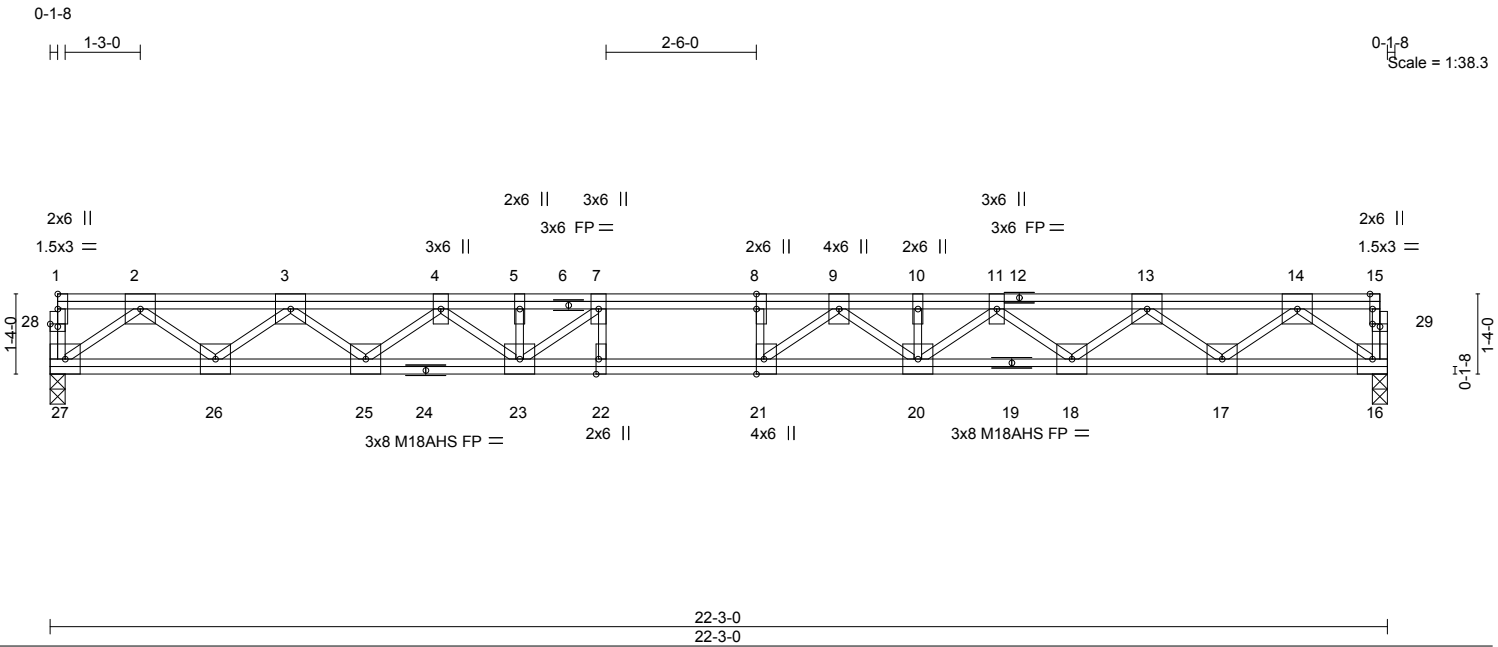

Plate Offsets (X,Y)-- [8:0-3-0,0-0-0], [15:0-3-0,Edge], [21:0-3-0,Edge], [22:0-3-0,Edge], [28:0-1-8,0-0-8], [29:0-1-8,0-0-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.28	Vert(LL)	-0.32	21	>816	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.62	Vert(CT)	-0.44	21	>594	360	M18AHS	186/179
BCLL	0.0	Rep Stress Incr	YES	WB	0.63	Horz(CT)	0.05	16	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 175 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 27=0-3-0, 16=0-3-0
Max Grav 27=1203(LC 1), 16=1203(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2459/0, 3-4=-4251/0, 4-5=-5445/0, 5-7=-5445/0, 7-8=-5947/0, 8-9=-5947/0, 9-10=-5471/0, 10-11=-5471/0, 11-13=-4246/0, 13-14=-2460/0
BOT CHORD 26-27=0/1467, 25-26=0/3507, 23-25=0/4963, 22-23=0/5947, 21-22=0/5947, 20-21=0/5809, 18-20=0/4966, 17-18=0/3506, 16-17=0/1467
WEBS 2-27=-1813/0, 2-26=0/1316, 3-26=-1387/0, 3-25=0/984, 4-25=-942/0, 4-23=0/625, 14-16=-1814/0, 14-17=0/1317, 13-17=-1385/0, 13-18=0/979, 11-18=-953/0, 11-20=0/654, 9-20=-512/0, 7-23=-1064/20, 9-21=-267/688, 8-21=-322/41

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are MT20 plates unless otherwise indicated.
3) All plates are 6x6 MT20 unless otherwise indicated.
4) Plates checked for a plus or minus 1 degree rotation about its center.
5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

May 28,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 90 Magnolia Hills
J0725-3386	F04	Floor	6	1	I73775461
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Tue May 27 15:33:00 2025 Page 1
ID:3YJEg_u8zX16RsP?VvW_V6zd0wB-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

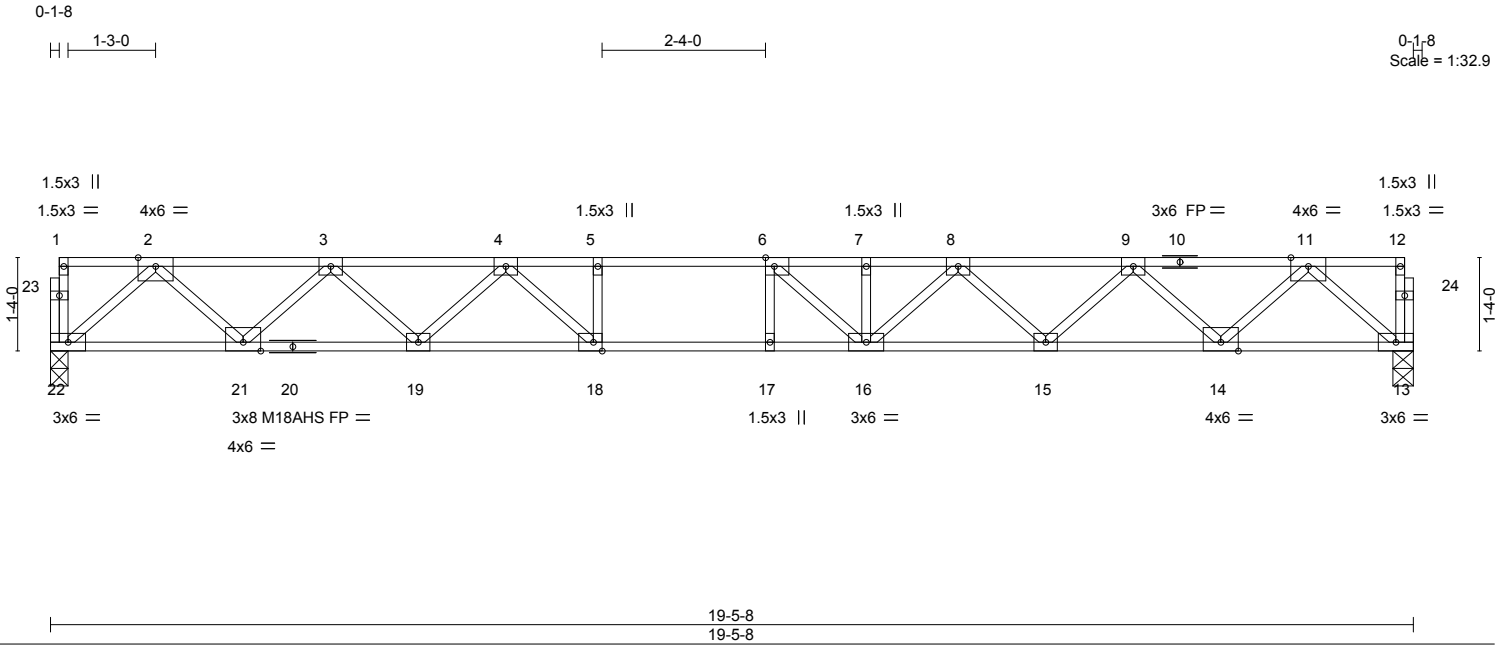

Plate Offsets (X,Y)-- [6:0-1-8,Edge], [18:0-1-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.90	Vert(LL)	-0.31	17	>753	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.72	Vert(CT)	-0.42	17	>549	360	M18AHS	186/179
BCLL	0.0	Rep Stress Incr	YES	WB	0.54	Horz(CT)	0.06	13	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 100 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP 2400F 2.0E(flat)
WEBS 2x4 SP No.3(flat)

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 22=0-3-0, 13=0-3-8
Max Grav 22=1050(LC 1), 13=1050(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1958/0, 3-4=-3238/0, 4-5=-4126/0, 5-6=-4126/0, 6-7=-4036/0, 7-8=-4036/0, 8-9=-3250/0, 9-11=-1955/0
BOT CHORD 21-22=0/1139, 19-21=0/2740, 18-19=0/3741, 17-18=0/4126, 16-17=0/4126, 15-16=0/3740, 14-15=0/2740, 13-14=0/1139
WEBS 2-22=-1514/0, 2-21=0/1138, 3-21=-1088/0, 3-19=0/693, 4-19=-699/0, 4-18=0/811, 5-18=-364/0, 11-13=-1514/0, 11-14=0/1134, 9-14=-1092/0, 9-15=0/710, 8-15=-682/0, 8-16=0/402, 6-16=-593/276

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are MT20 plates unless otherwise indicated.
3) All plates are 3x4 MT20 unless otherwise indicated.
4) Plates checked for a plus or minus 1 degree rotation about its center.
5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

May 28,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 90 Magnolia Hills
J0725-3386	F05	FLOOR	2	1	I73775462
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Tue May 27 15:33:01 2025 Page 1
ID:3YJEg_u8zX16RsP?VvW_V6zd0wB-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

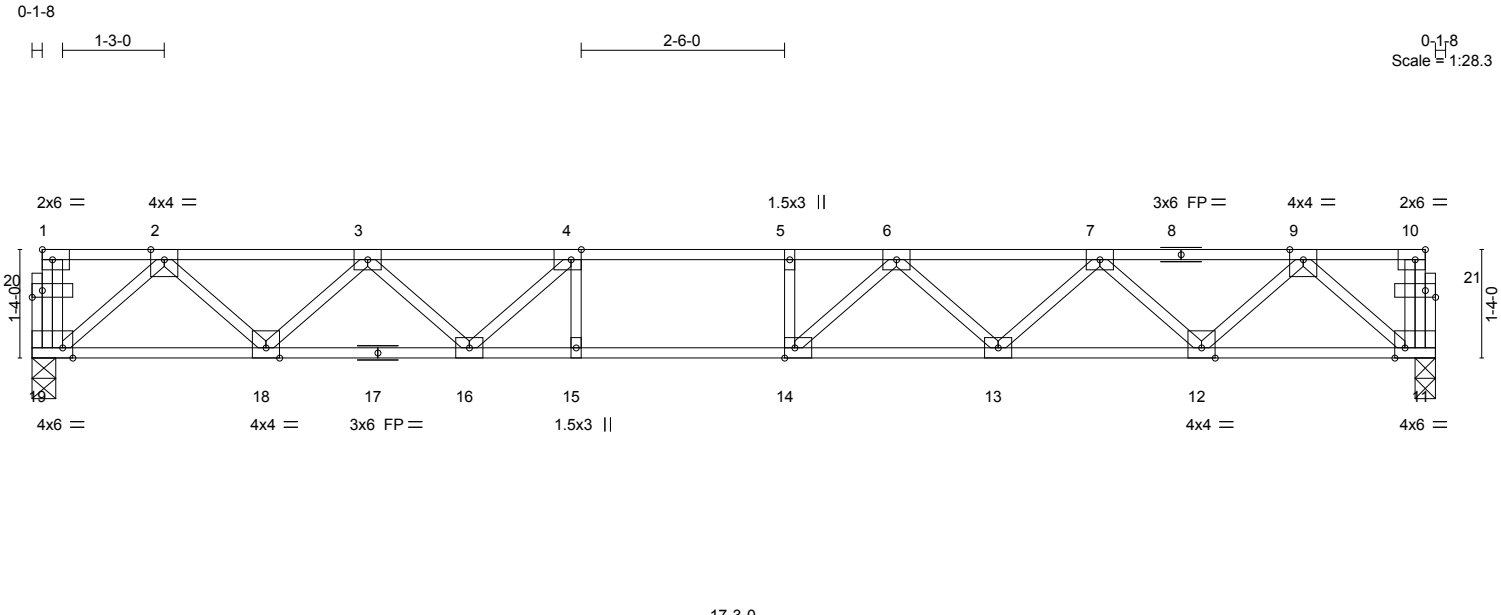

Plate Offsets (X,Y)-- [4:0-1-8,Edge], [10:0-1-8,Edge], [11:0-1-8,Edge], [14:0-1-8,Edge], [19:0-1-8,Edge], [20:0-1-8,0-1-0], [21:0-1-8,0-1-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.47	Vert(LL)	-0.25	13-14	>813	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.97	Vert(CT)	-0.33	13-14	>619	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.45	Horz(CT)	0.06	11	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 90 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP 2400F 2.0E(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 2-2-0 oc bracing: 14-15.

REACTIONS. (size) 11=0-3-0, 19=0-3-8
Max Grav 11=923(LC 1), 19=923(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1755/0, 3-4=-2785/0, 4-5=-3224/0, 5-6=-3224/0, 6-7=-2783/0, 7-9=-1755/0
BOT CHORD 18-19=0/1085, 16-18=0/2389, 15-16=0/3224, 14-15=0/3224, 13-14=0/3116, 12-13=0/2406, 11-12=0/1080
WEBS 9-11=-1381/0, 9-12=0/940, 7-12=-905/0, 7-13=0/525, 6-13=-462/0, 2-19=-1388/0, 2-18=0/931, 3-18=-882/0, 3-16=0/609, 4-16=-760/0, 6-14=-154/521, 5-14=-267/9

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x4 MT20 unless otherwise indicated.
3) Plates checked for a plus or minus 1 degree rotation about its center.
4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

May 28,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 90 Magnolia Hills
J0725-3386	F07	Floor	6	1	I73775463
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Tue May 27 15:33:01 2025 Page 1
ID:3YJEg_u8zX16RsP?VvW_V6zd0wB-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

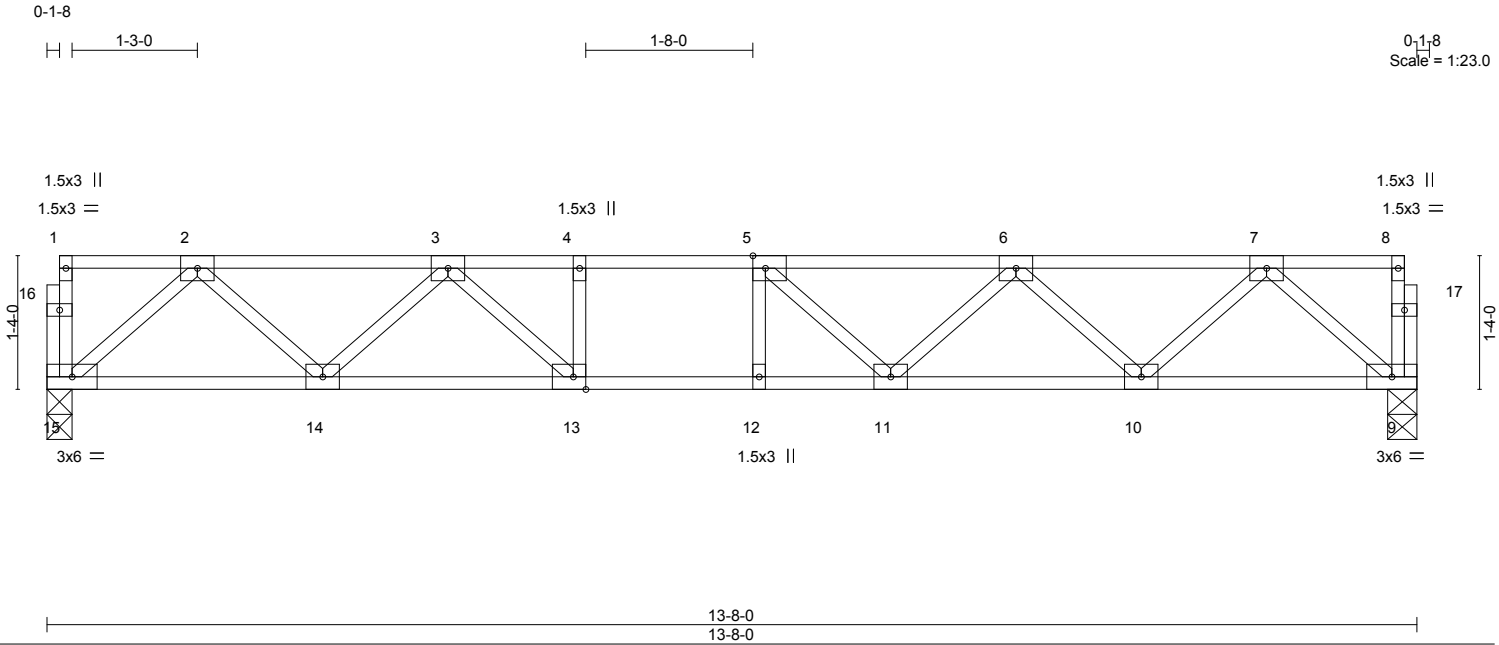

Plate Offsets (X,Y)-- [5:0-1-8,Edge], [13:0-1-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.41	Vert(LL)	-0.11	11-12	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.67	Vert(CT)	-0.14	11-12	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.33	Horz(CT)	0.03	9	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 72 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 15=0-3-0, 9=0-3-8
Max Grav 15=732(LC 1), 9=732(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1252/0, 3-4=-2011/0, 4-5=-2011/0, 5-6=-1901/0, 6-7=-1266/0
BOT CHORD 14-15=0/781, 13-14=0/1713, 12-13=0/2011, 11-12=0/2011, 10-11=0/1733, 9-10=0/775
WEBS 2-15=-1038/0, 2-14=0/654, 3-14=-641/0, 3-13=0/561, 7-9=-1029/0, 7-10=0/684, 6-10=-649/0, 6-11=0/309, 5-11=-328/45

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x4 MT20 unless otherwise indicated.
3) Plates checked for a plus or minus 1 degree rotation about its center.
4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

May 28,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 90 Magnolia Hills
J0725-3386	F08	Floor	1	1	I73775464
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Tue May 27 15:33:01 2025 Page 1
ID:3YJEg_u8zX16RsP?VvW_V6zd0wB-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

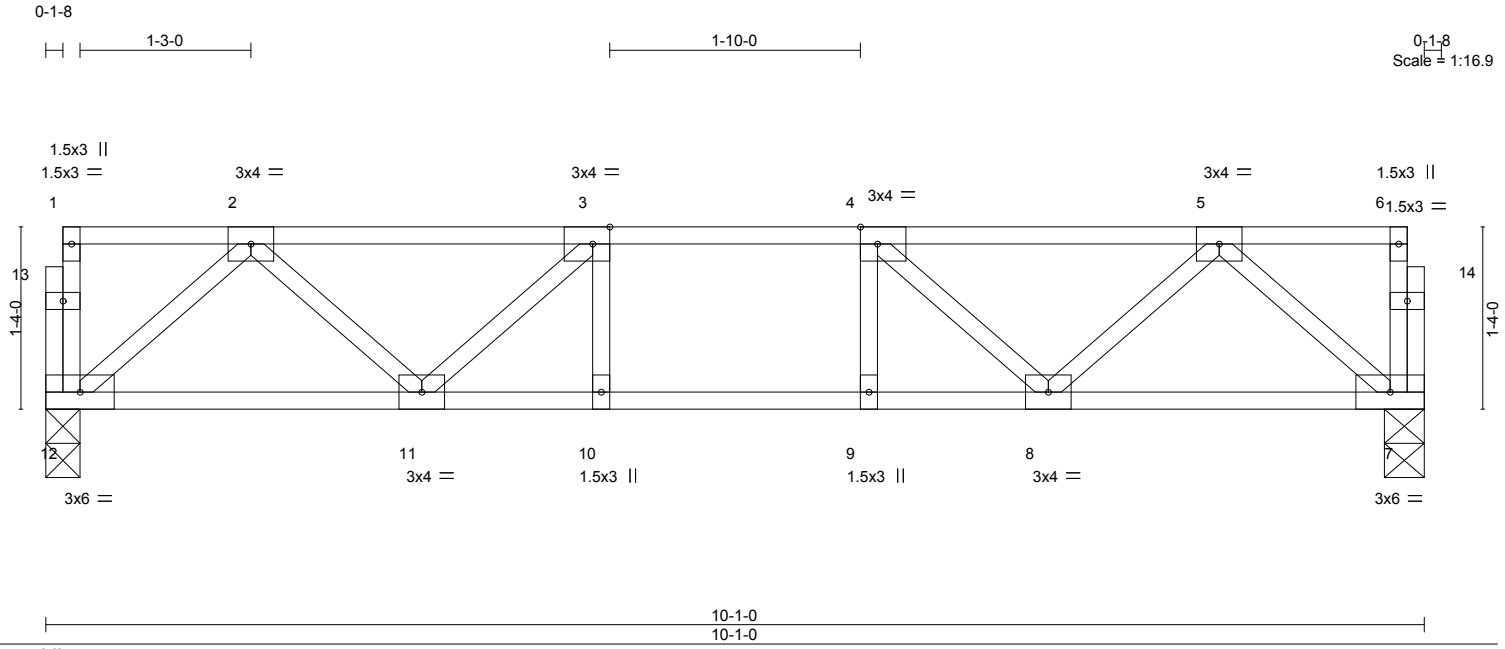

Plate Offsets (X,Y)-- [3:0-1-8,Edge], [4:0-1-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.24	Vert(LL)	-0.05	10-11	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.37	Vert(CT)	-0.05	10	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.18	Horz(CT)	0.01	7	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 54 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 12=0-3-0, 7=0-3-8
Max Grav 12=535(LC 1), 7=535(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-832/0, 3-4=-1090/0, 4-5=-832/0
BOT CHORD 11-12=0/561, 10-11=0/1090, 9-10=0/1090, 8-9=0/1090, 7-8=0/561
WEBS 2-12=-744/0, 2-11=0/377, 3-11=-384/0, 5-7=-744/0, 5-8=0/377, 4-8=-384/0

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) Plates checked for a plus or minus 1 degree rotation about its center.
3) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

May 28,2025

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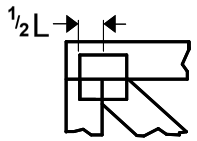
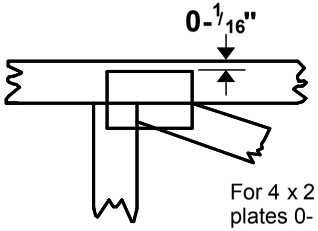
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Symbols

PLATE LOCATION AND ORIENTATION



Center plate on joint unless x, y offsets are indicated. Dimensions are in ft-in-sixteenths. Apply plates to both sides of truss and fully embed teeth.



For 4 x 2 orientation, locate plates 0- 1/16" from outside edge of truss.

This symbol indicates the required direction of slots in connector plates.

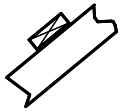
* Plate location details available in MiTek software or upon request.

PLATE SIZE

4 x 4

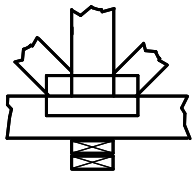
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



Indicated by symbol shown and/or by text in the bracing section of the output. Use T or I bracing if indicated.

BEARING

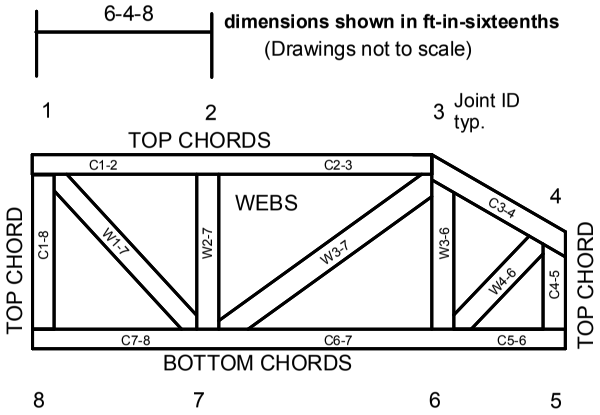


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-22: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses.

Numbering System



JOINTS ARE GENERALLY NUMBERED/LETTERED CLOCKWISE AROUND THE TRUSS STARTING AT THE JOINT FARTHEST TO THE LEFT.

CHORDS AND WEBS ARE IDENTIFIED BY END JOINT NUMBERS/LETTERS.

Product Code Approvals

ICC-ES Reports:

ESR-1988, ESR-2362, ESR-2685, ESR-3282
ESR-4722, ESL-1388

Design General Notes

Trusses are designed for wind loads in the plane of the truss unless otherwise shown.

Lumber design values are in accordance with ANSI/TPI 1 section 6.3 These truss designs rely on lumber values established by others.

MiTek®

ENGINEERING BY TRENCO
A MiTek Affiliate

MiTek Engineering Reference Sheet: MII-7473 rev. 1/2/2023

General Safety Notes

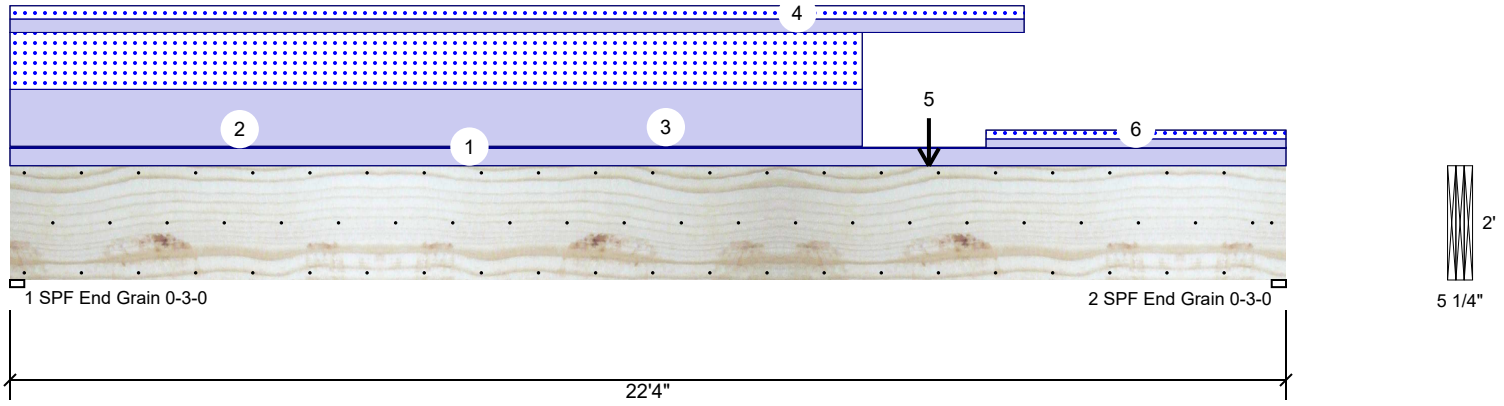
Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TPI 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TPI 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.

Client:		Date:	7/30/2025
Project:		Input by:	Neal Baggett
Address:		Job Name:	90 MAGNOLIA HILLS
		Project #:	

FB1 Kerto-S LVL 1.750" X 24.000" 3-Ply - PASSED

Level: Level



Member Information

Type:	Girder	Application:	Floor
Plies:	3	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	Yes
Deflection TL:	360	Deck:	Not Checked
Importance:	Normal - II		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	112	7018	5324	0	0
2	Vertical	112	5588	3893	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.000"	Vert	93%	7018 / 5324	12342	L	D+S
2 - SPF End Grain	3.000"	Vert	72%	5588 / 3893	9480	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	65847 ft-lb	11' 1/4"	131295 ft-lb	50%	D+S	L
Unbraced	65847 ft-lb	11' 1/4"	66073 ft-lb	100%	D+S	L
Shear	9830 lb	2'3"	30912 lb	32%	D+S	L
LL Defl inch	0.228 (L/1158)	11'1"	0.549 (L/480)	41%	S	L
TL Defl inch	0.530 (L/498)	11'1 1/4"	0.733 (L/360)	72%	D+S	L

Design Notes

1 Provide support to prevent lateral movement and rotation at the end bearings.
2 Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6". Nail from both sides.
3 Refer to last page of calculations for fasteners required for specified loads.
4 Girders are designed to be supported on bottom edge only and across their full width.
5 Top loads must be supported equally by all plies.
6 Top must be laterally braced at a maximum of 3'11 15/16" o.c.
7 Bottom must be laterally braced at end bearings.
8 Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Top	120 PLF	0 PLF	0 PLF	0 PLF	0 PLF	WALL
2	Tie-In Far	0-0-0 to 22-4-0	0-3-0	Far Face	15 PSF	40 PSF	0 PSF	0 PSF	0 PSF	FLOOR LOADING
2	Tie-In Near	0-0-0 to 22-4-0	0-0-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	0 PSF	FLOOR LOADING
3	Part. Uniform	0-0-0 to 14-11-0		Top	392 PLF	0 PLF	392 PLF	0 PLF	0 PLF	A TRUSSES
4	Part. Uniform	0-0-0 to 17-9-0		Near Face	92 PLF	0 PLF	92 PLF	0 PLF	0 PLF	P TRUSSES

Continued on page 2...

Notes

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Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 2/28/2028

Manufacturer Info

Metsä Wood
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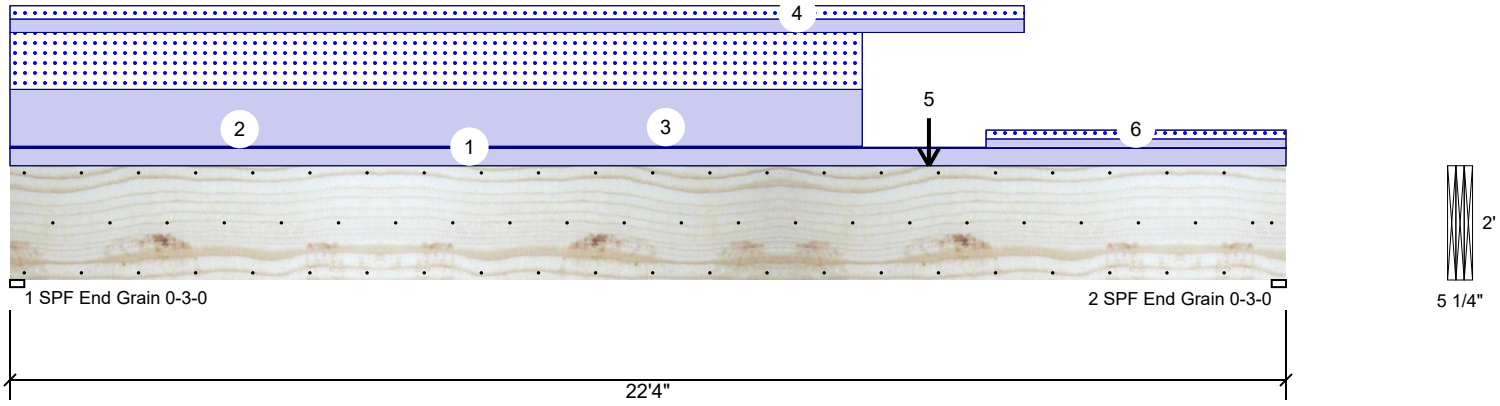
Norwalk, CT 06851
(800) 622-5850
www.metsawood.com/us

Comtech, Inc.
1001 S. Reilly Road, Suite #639
Fayetteville, NC
USA
28314
910-864-TRUS

Client:		Date:	7/30/2025
Project:		Input by:	Neal Baggett
Address:		Job Name:	90 MAGNOLIA HILLS
		Project #:	

FB1 Kerto-S LVL 1.750" X 24.000" 3-Ply - PASSED

Level: Level



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ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
5	Point	16-1-0		Top	1416 lb	0 lb	1416 lb	0 lb	0 lb	A1
	Bearing Length	0-3-8								
6	Part. Uniform	17-1-0 to 22-4-0		Top	61 PLF	0 PLF	61 PLF	0 PLF	0 PLF	Y TRUSSES
	Self Weight				28 PLF					

Notes

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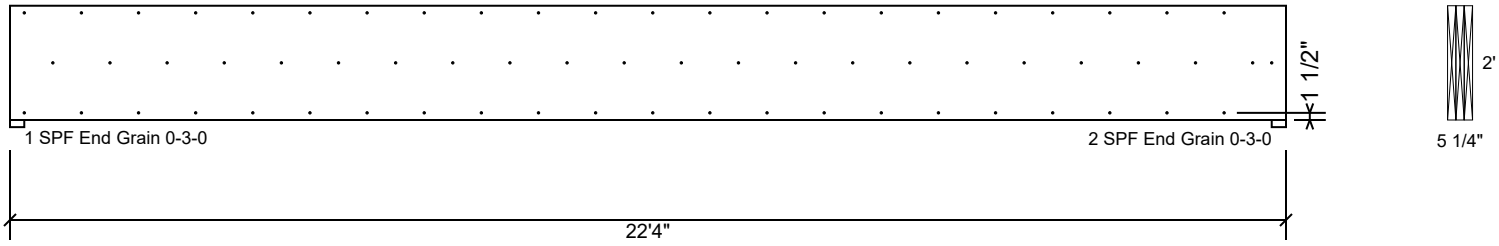

Multi-Ply Analysis

Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c.. Nail from both sides. Maximum end distance not to exceed 6".

Capacity	43.4 %
Load	122.7 PLF
Yield Limit per Foot	282.4 PLF
Yield Limit per Fastener	94.1 lb.
C_M	1
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	D+S
Duration Factor	1.15

Notes

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Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

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Client:		Date:	7/30/2025
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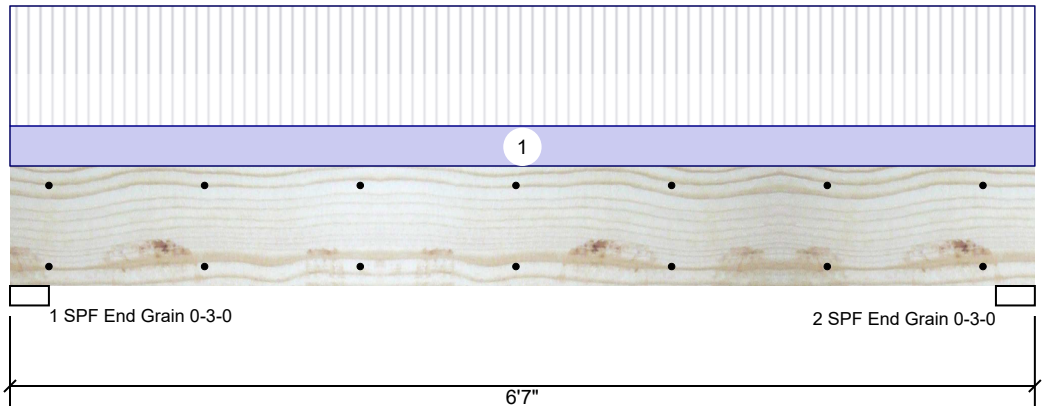
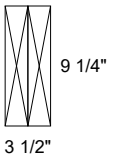
Address:		Job Name:	90 MAGNOLIA HILLS
		Project #:	

DB2 Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED

Level: Level





Member Information

Type:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	No
Deflection TL:	360	Deck:	Not Checked
Importance:	Normal - II		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	2696	922	0	0	0
2	Vertical	2696	922	0	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.000"	Vert	41%	922 / 2696	3618	L	D+L
2 - SPF End Grain	3.000"	Vert	41%	922 / 2696	3618	L	D+L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	5296 ft-lb	3'3 1/2"	12542 ft-lb	42%	D+L	L
Unbraced	5296 ft-lb	3'3 1/2"	9872 ft-lb	54%	D+L	L
Shear	2496 lb	1' 1/4"	6907 lb	36%	D+L	L
LL Defl inch	0.073 (L/1016)	3'3 1/2"	0.155 (L/480)	47%	L	L
TL Defl inch	0.098 (L/757)	3'3 1/2"	0.207 (L/360)	48%	D+L	L

Design Notes

1 Provide support to prevent lateral movement and rotation at the end bearings.
2 Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
3 Refer to last page of calculations for fasteners required for specified loads.
4 Girders are designed to be supported on bottom edge only and across their full width.
5 Top loads must be supported equally by all plies.
6 Top must be laterally braced at end bearings.
7 Bottom must be laterally braced at end bearings.
8 Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Top	273 PLF	819 PLF	0 PLF	0 PLF	0 PLF	F01
	Self Weight				7 PLF					

Notes

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Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 2/28/2028

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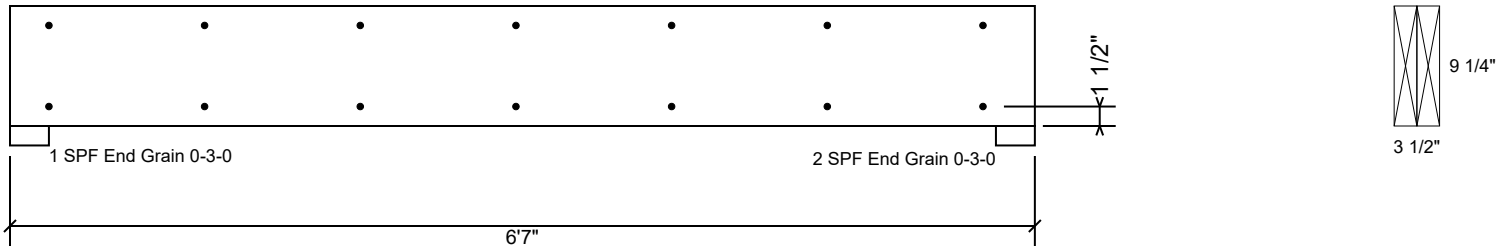
Address:		Job Name:	90 MAGNOLIA HILLS
		Project #:	

DB2 Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED

Level: Level



Multi-Ply Analysis

Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c.. Maximum end distance not to exceed 6".

Capacity	0.0 %
Load	0.0 PLF
Yield Limit per Foot	163.7 PLF
Yield Limit per Fastener	81.9 lb.
C_M	1
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

Notes

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Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive chemicals

Handling & Installation

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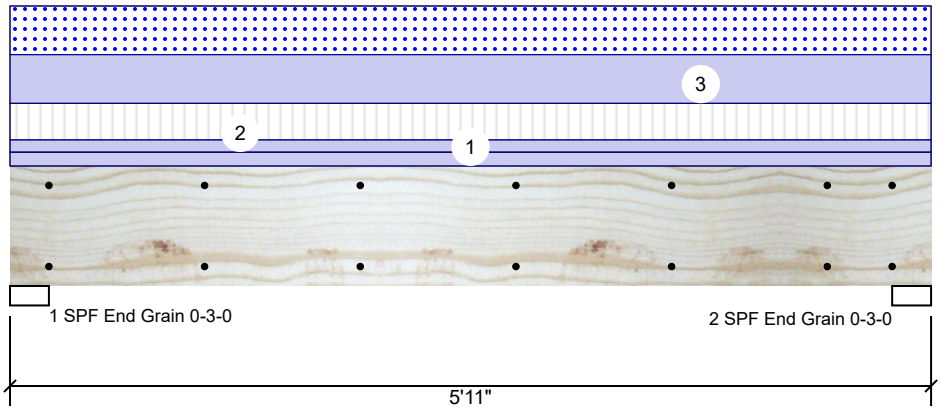
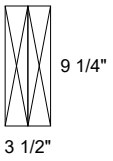
HDR1 Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED

Level: Level





Member Information

Type:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	No
Deflection TL:	360	Deck:	Not Checked
Importance:	Normal - II		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	932	1926	1240	0	0
2	Vertical	932	1926	1240	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.000"	Vert	40%	1926 / 1629	3555	L	D+0.75(L+S)
2 - SPF End Grain	3.000"	Vert	40%	1926 / 1629	3555	L	D+0.75(L+S)

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	4613 ft-lb	2'11 1/2"	14423 ft-lb	32%	D+0.75(L+S)	L
Unbraced	4613 ft-lb	2'11 1/2"	11027 ft-lb	42%	D+0.75(L+S)	L
Shear	2328 lb	4'10 3/4"	7943 lb	29%	D+0.75(L+S)	L
LL Defl inch	0.033 (L/2026)	2'11 1/2"	0.139 (L/480)	24%	0.75(L+S)	L
TL Defl inch	0.072 (L/928)	2'11 1/2"	0.185 (L/360)	39%	D+0.75(L+S)	L

Design Notes

1 Provide support to prevent lateral movement and rotation at the end bearings.
2 Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
3 Refer to last page of calculations for fasteners required for specified loads.
4 Girders are designed to be supported on bottom edge only and across their full width.
5 Top loads must be supported equally by all plies.
6 Top must be laterally braced at end bearings.
7 Bottom must be laterally braced at end bearings.
8 Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Top	120 PLF	0 PLF	0 PLF	0 PLF	0 PLF	WALL
2	Uniform			Top	105 PLF	315 PLF	0 PLF	0 PLF	0 PLF	FLOOR TRUSSES
3	Uniform			Top	419 PLF	0 PLF	419 PLF	0 PLF	0 PLF	ROOF TRUSSES
	Self Weight				7 PLF					

Notes

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Lumber

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Handling & Installation

1. LVL beams must not be cut or drilled
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3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
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HDR1 Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED

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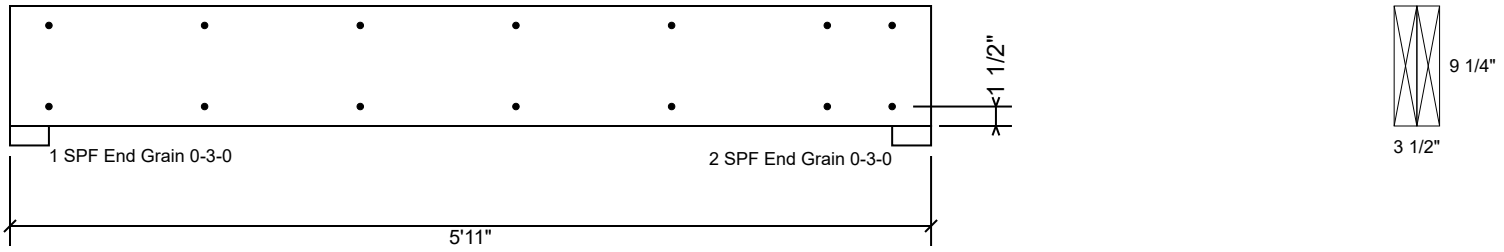

Multi-Ply Analysis

Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c.. Maximum end distance not to exceed 6".

Capacity	0.0 %
Load	0.0 PLF
Yield Limit per Foot	163.7 PLF
Yield Limit per Fastener	81.9 lb.
C_M	1
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

Notes

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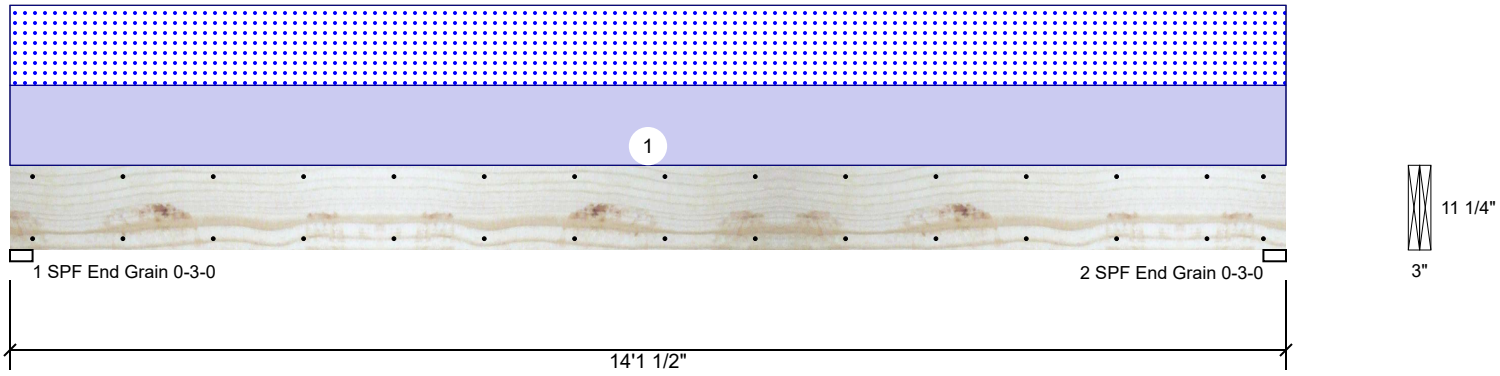
Comtech, Inc.
1001 S. Reilly Road, Suite #639
Fayetteville, NC
USA
28314
910-864-TRUS

DB3 SP #2 2.000" X 12.000" 2-Ply - PASSED

Level: Level



Member Information

Type:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	No
Deflection TL:	360	Deck:	Not Checked
Importance:	Normal - II		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	0	677	586	0	0
2	Vertical	0	677	586	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.000"	Vert	25%	677 / 586	1263	L	D+S
2 - SPF End Grain	3.000"	Vert	25%	677 / 586	1263	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	4228 ft-lb	7' 3/4"	4548 ft-lb	93%	D+S	L
Unbraced	4228 ft-lb	7' 3/4"	4229 ft-lb	100%	D+S	L
Shear	1051 lb	1'2 1/4"	4528 lb	23%	D+S	L
LL Defl inch	0.134 (L/1232)	7' 13/16"	0.344 (L/480)	39%	S	L
TL Defl inch	0.289 (L/572)	7' 13/16"	0.458 (L/360)	63%	D+S	L

Design Notes

1 Provide support to prevent lateral movement and rotation at the end bearings.
2 Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
3 Refer to last page of calculations for fasteners required for specified loads.
4 Girders are designed to be supported on bottom edge only and across their full width.
5 Top loads must be supported equally by all plies.
6 Top must be laterally braced at a maximum of 5'2 3/16" o.c.
7 Bottom must be laterally braced at end bearings.
8 Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Top	83 PLF	0 PLF	83 PLF	0 PLF	0 PLF	P TRUSSES
	Self Weight				13 PLF					

This design is valid until 2/28/2028

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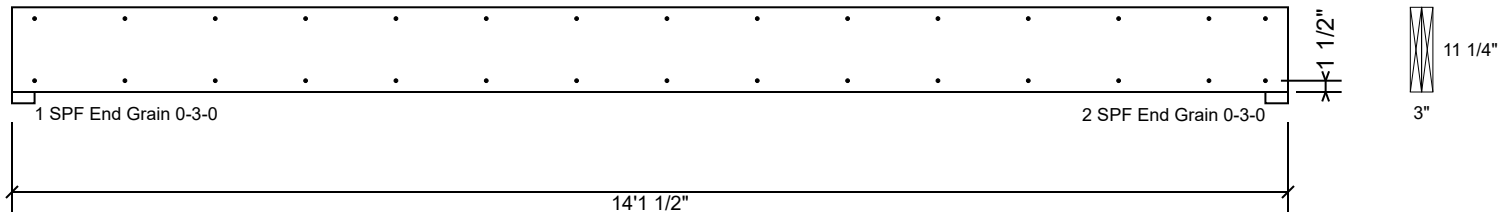
DB3 SP #2 2.000" X 12.000" 2-Ply - PASSED

Level: Level



Multi-Ply Analysis

Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c.. Maximum end distance not to exceed 6".

Capacity	0.0 %
Load	0.0 PLF
Yield Limit per Foot	202.6 PLF
Yield Limit per Fastener	101.3 lb.
C_M	1
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

This design is valid until 2/28/2028

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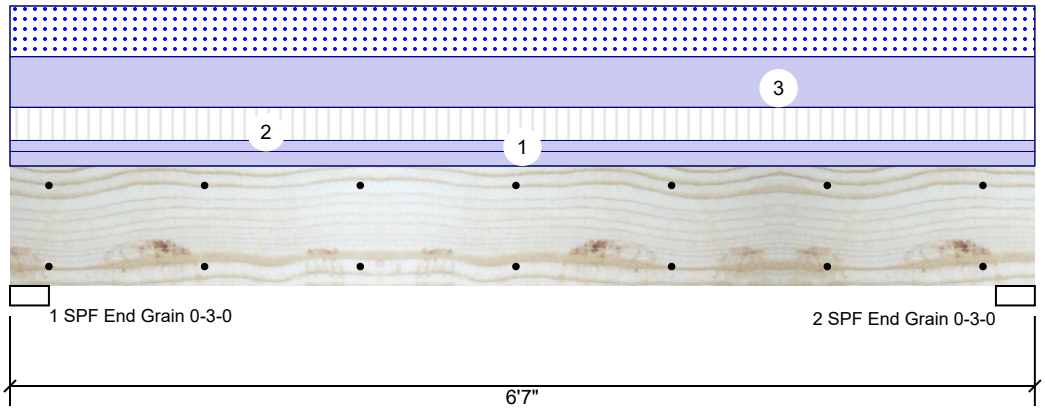
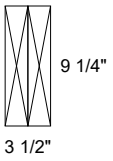
Client:		Date:	7/30/2025
Project:		Input by:	Neal Baggett
Address:		Job Name:	90 MAGNOLIA HILLS
		Project #:	

HDR2 Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED

Level: Level





Member Information

Type:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	No
Deflection TL:	360	Deck:	Not Checked
Importance:	Normal - II		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	902	2097	1379	0	0
2	Vertical	902	2097	1379	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.000"	Vert	43%	2097 / 1711	3808	L	D+0.75(L+S)
2 - SPF End Grain	3.000"	Vert	43%	2097 / 1711	3808	L	D+0.75(L+S)

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	5574 ft-lb	3'3 1/2"	14423 ft-lb	39%	D+0.75(L+S)	L
Unbraced	5574 ft-lb	3'3 1/2"	10370 ft-lb	54%	D+0.75(L+S)	L
Shear	2627 lb	1' 1/4"	7943 lb	33%	D+0.75(L+S)	L
LL Defl inch	0.047 (L/1601)	3'3 1/2"	0.155 (L/480)	30%	0.75(L+S)	L
TL Defl inch	0.104 (L/719)	3'3 1/2"	0.207 (L/360)	50%	D+0.75(L+S)	L

Design Notes

1 Provide support to prevent lateral movement and rotation at the end bearings.
2 Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
3 Refer to last page of calculations for fasteners required for specified loads.
4 Girders are designed to be supported on bottom edge only and across their full width.
5 Top loads must be supported equally by all plies.
6 Top must be laterally braced at end bearings.
7 Bottom must be laterally braced at end bearings.
8 Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Top	120 PLF	0 PLF	0 PLF	0 PLF	0 PLF	WALL
2	Uniform			Top	91 PLF	274 PLF	0 PLF	0 PLF	0 PLF	FLOOR TRUSSES
3	Uniform			Top	419 PLF	0 PLF	419 PLF	0 PLF	0 PLF	ROOF TRUSSES
	Self Weight				7 PLF					

Notes

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Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 2/28/2028

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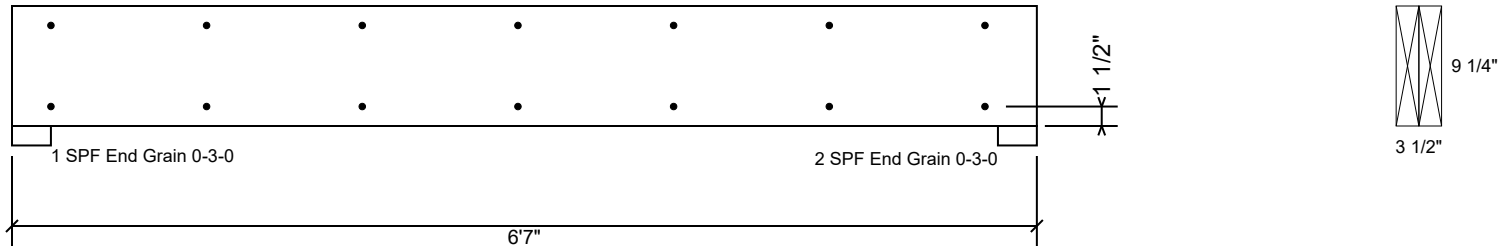
Client:		Date:	7/30/2025
Project:		Input by:	Neal Baggett
Address:		Job Name:	90 MAGNOLIA HILLS
		Project #:	

HDR2 Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED

Level: Level



Multi-Ply Analysis

Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c.. Maximum end distance not to exceed 6".

Capacity	0.0 %
Load	0.0 PLF
Yield Limit per Foot	163.7 PLF
Yield Limit per Fastener	81.9 lb.
C_M	1
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

Notes

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Lumber

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2. LVL not to be treated with fire retardant or corrosive chemicals

Handling & Installation

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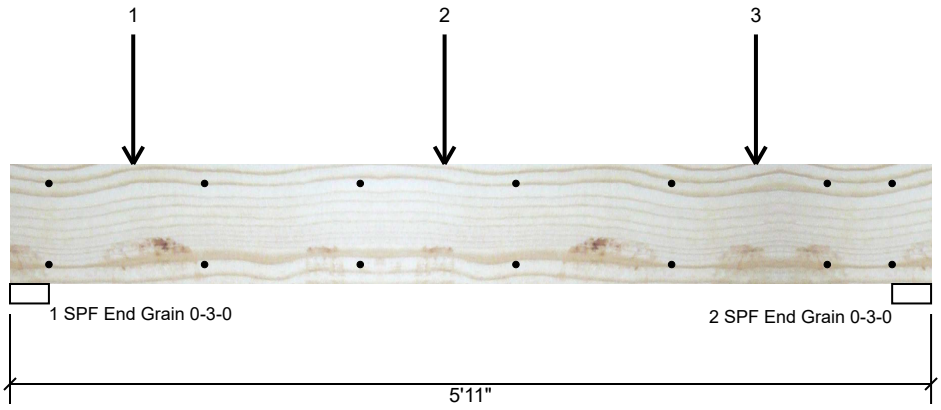
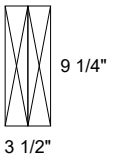
Project:		Input by:	Neal Baggett
Address:		Job Name:	90 MAGNOLIA HILLS
		Project #:	

HDR3 Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED

Level: Level





Member Information

Type:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	No
Deflection TL:	360	Deck:	Not Checked
Importance:	Normal - II		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	0	1472	1451	0	0
2	Vertical	0	871	850	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.000"	Vert	33%	1472 / 1451	2923	L	D+S
2 - SPF End Grain	3.000"	Vert	20%	871 / 850	1721	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	4533 ft-lb	2'9 1/2"	14423 ft-lb	31%	D+S	L
Unbraced	4533 ft-lb	2'9 1/2"	11027 ft-lb	41%	D+S	L
Shear	2462 lb	1' 1/4"	7943 lb	31%	D+S	L
LL Defl inch	0.031 (L/2162)	2'9 1/2"	0.139 (L/480)	22%	S	L
TL Defl inch	0.062 (L/1074)	2'9 1/2"	0.185 (L/360)	34%	D+S	L

Design Notes

1 Provide support to prevent lateral movement and rotation at the end bearings.
2 Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
3 Refer to last page of calculations for fasteners required for specified loads.
4 Girders are designed to be supported on bottom edge only and across their full width.
5 Top loads must be supported equally by all plies.
6 Top must be laterally braced at end bearings.
7 Bottom must be laterally braced at end bearings.
8 Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Point	0-9-8		Top	763 lb	0 lb	763 lb	0 lb	0 lb	A2
	Bearing Length	0-3-8								
2	Point	2-9-8		Top	1416 lb	0 lb	1416 lb	0 lb	0 lb	A1
	Bearing Length	0-3-8								
3	Point	4-9-8		Top	122 lb	0 lb	122 lb	0 lb	0 lb	YA2
	Bearing Length	0-3-8								
	Self Weight				7 PLF					

Notes

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Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 2/28/2028

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HDR3 Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED

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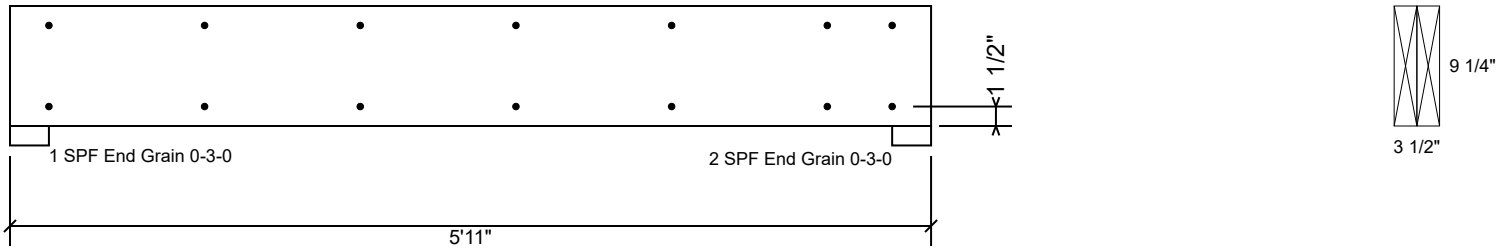

Multi-Ply Analysis

Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c.. Maximum end distance not to exceed 6".

Capacity	0.0 %
Load	0.0 PLF
Yield Limit per Foot	163.7 PLF
Yield Limit per Fastener	81.9 lb.
C_M	1
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

Notes

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber

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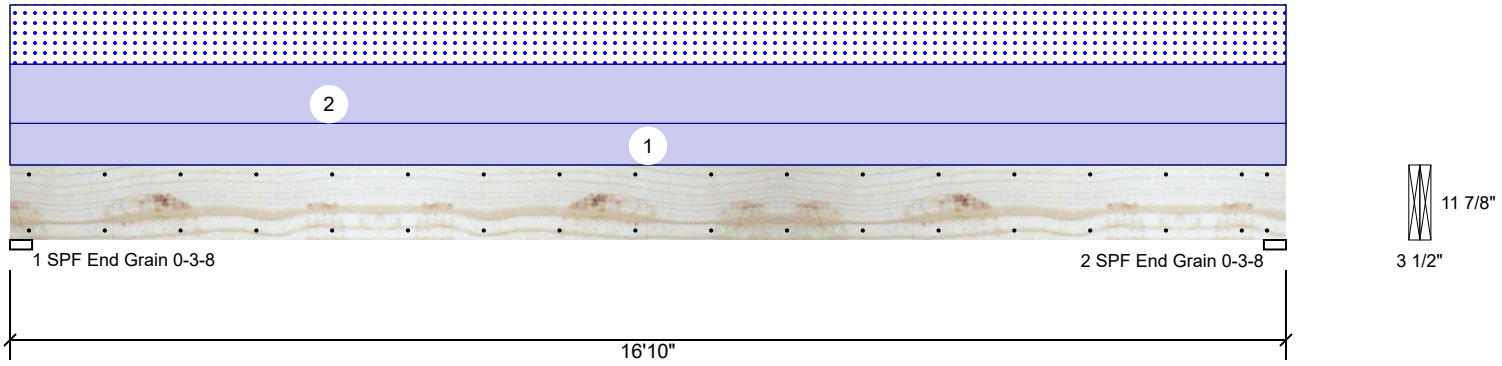
Client:		Date:	7/30/2025
Project:		Input by:	Neal Baggett
Address:		Job Name:	90 MAGNOLIA HILLS
		Project #:	

GDH Kerto-S LVL 1.750" X 11.875" 2-Ply - PASSED

Level: Level



Member Information

Type:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	No
Deflection TL:	360	Deck:	Not Checked
Importance:	Normal - II		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	0	995	539	0	0
2	Vertical	0	995	539	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	Vert	15%	995 / 539	1534	L	D+S
2 - SPF End Grain	3.500"	Vert	15%	995 / 539	1534	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	6108 ft-lb	8'5"	22897 ft-lb	27%	D+S	L
Unbraced	6108 ft-lb	8'5"	6109 ft-lb	100%	D+S	L
Shear	1300 lb	1'3 3/8"	10197 lb	13%	D+S	L
LL Defl inch	0.112 (L/1755)	8'5 1/16"	0.409 (L/480)	27%	S	L
TL Defl inch	0.319 (L/617)	8'5 1/16"	0.546 (L/360)	58%	D+S	L

Design Notes

1 Provide support to prevent lateral movement and rotation at the end bearings.
2 Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
3 Refer to last page of calculations for fasteners required for specified loads.
4 Girders are designed to be supported on bottom edge only and across their full width.
5 Top loads must be supported equally by all plies.
6 Top must be laterally braced at a maximum of 16'3 3/4" o.c.
7 Bottom must be laterally braced at end bearings.
8 Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Top	45 PLF	0 PLF	0 PLF	0 PLF	0 PLF	WALL
2	Uniform			Top	64 PLF	0 PLF	64 PLF	0 PLF	0 PLF	P2
	Self Weight				9 PLF					

Notes

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Handling & Installation

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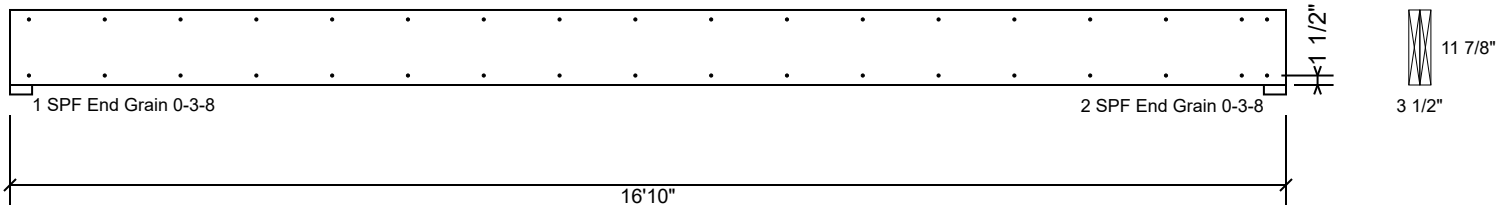

Multi-Ply Analysis

Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c.. Maximum end distance not to exceed 6".

Capacity	0.0 %
Load	0.0 PLF
Yield Limit per Foot	163.7 PLF
Yield Limit per Fastener	81.9 lb.
C_M	1
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

Notes

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